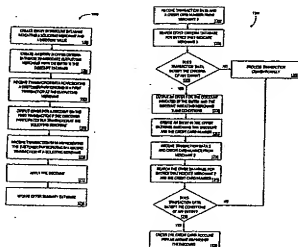




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(54) Title: METHOD AND APPARATUS FOR PROVIDING A DISCOUNT TO A CUSTOMER THAT PARTICIPATES IN TRANSACTIONS AT A PLURALITY OF MERCHANTS



(57) Abstract

A server computer or other device determines whether a customer has consummated a first transaction with a first predetermined merchant and a second transaction with a second predetermined merchant. If so, the customer is provided with a bonus. In one embodiment, the server receives first transaction data representing a first transaction at a first merchant. The server determines, based on the first transaction data, a discount and a second merchant. The discount is applicable if the consumer consummates a second transaction at the second merchant. The server then outputs an indication of the discount and the second merchant to inform the customer. Subsequently, the server receives second transaction data representing the second transaction at the second merchant, and in response the discount is applied.

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**METHOD AND APPARATUS FOR PROVIDING A DISCOUNT TO A
CUSTOMER THAT PARTICIPATES IN TRANSACTIONS AT A PLURALITY OF
MERCHANTS**

5 **CROSS-REFERENCE TO RELATED APPLICATIONS**

This application is related to co-pending United States patent application Serial No. 09/098,240 entitled "SYSTEM AND METHOD FOR APPLYING AND TRACKING A CONDITIONAL VALUE COUPON FOR A RETAIL ESTABLISHMENT" filed on June 16, 1998 in the name of Jay S. Walker and Andrew S. Van Luchene; and is further related
10 to co-pending United States patent application Serial No. 09/166,405 entitled "METHOD AND APPARATUS FOR DEFINING ROUTING OF CUSTOMERS BETWEEN MERCHANTS" filed on October 5, 1998 in the name of Jay S. Walker, Andrew Van Luchene, Daniel E. Tedesco, Magdalena Mik and James A. Jorasch (Attorney Docket No. WD2-98-048); and is further related to co-pending United States patent application Ser.
15 No. 09/166,339 entitled "METHOD AND APPARATUS FOR MAINTAINING A CUSTOMER DATABASE USING LICENSE PLATE SCANNING" filed on October 5, 1998 in the name of Jay S. Walker, Joshua D. Rogers and Andrew S. Van Luchene (Attorney Docket No. WD2-98-059), each of which is assigned to the assignee of the present application and each of which is incorporated by reference herein as part of the
20 present disclosure.

FIELD OF THE INVENTION

The present invention relates to methods and apparatus for providing discounts.

BACKGROUND OF THE INVENTION

Point-of-sale ("POS") terminals, such as cash registers, are used in a wide variety of businesses for performing such processes as calculating the total price of a purchase (goods or services), tracking inventory that is sold and calculating the amount of change due to a customer. In addition, POS terminals may also be used to read and process coupons used by customers and print coupons for customers.

When a customer uses a coupon during a transaction (e.g. a purchase of goods and/or services), a discount is applied to the transaction. For example, a price that a customer is charged for an item may be reduced, or the entire transaction price (sum of the prices of all items in the transaction) may be reduced. Businesses typically offer coupons to customers in an attempt to promote many objectives. One such objective is to entice customers to visit the business, thereby promoting customer retention. Coupons may further entice customers to visit the business more frequently. For example, a coupon may have an expiration date, and so the customer must use the coupon before that date or not at all. Businesses may also promote certain items by offering coupons that provide a discount only when those items are included in a purchase.

However, most discount offers that businesses provide cannot quickly respond to changing conditions of the business. For example, the business typically cannot know in advance precisely when it will need customers (i.e. "slow days") and when customers will be in abundance. Further, it is difficult to make customers aware of discounts in advance of when the customers will be most needed.

It would be advantageous to provide a method and apparatus for generating discounts that allowed a business to more effectively promote its various objectives.

SUMMARY OF THE INVENTION

5 It is an object of the present invention to provide a method and apparatus for generating discounts that allowed a business to more effectively promote its various objectives.

In accordance with the present invention, a server computer or other device determines whether a customer has consummated a first transaction with a first
10 predetermined merchant and a second transaction with a second predetermined merchant. If so, the customer is provided with a bonus.

In one embodiment, the server receives first transaction data representing a first transaction at a first merchant. The server determines, based on the first transaction data, a discount and a second merchant. The discount is applicable if the consumer
15 consummates a second transaction at the second merchant. The server then outputs an indication of the discount and the second merchant to inform the customer. Subsequently, the server receives second transaction data representing the second transaction at the second merchant, and in response the discount is applied.

20 BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic illustration of an apparatus provided in accordance with the present invention.

FIG. 2 is a schematic illustration of a server of the apparatus of FIG. 1.

FIG. 3 is a schematic illustration of a store controller of the apparatus of

FIG. 1.

FIG. 4 is a schematic illustration of a POS terminal of the apparatus of FIG.

5 1.

FIG. 5 is a schematic illustration of an embodiment of a merchant database
of the server of FIG. 2.

FIG. 6 is a schematic illustration of an embodiment of an offer criteria
database of the server of FIG. 2.

10 FIG. 7 is a schematic illustration of an embodiment of a discount database
of the server of FIG. 2.

FIG. 8 is a schematic illustration of an embodiment of an offer database of
the server of FIG. 2.

15 FIG. 9 is a schematic illustration of an embodiment of an offer summary
database of the server of FIG. 2.

FIG. 10 is a schematic illustration of an embodiment of an inventory
database of the POS terminal of FIG. 3.

FIG. 11 is a schematic illustration of an embodiment of a customer database
of the POS terminal of FIG. 3.

20 FIG. 12 is a flow chart illustrating an embodiment of a method that is
performed by the server of FIG. 2 in accordance with the present invention.

FIG. 13 is a flow chart illustrating another embodiment of a method that is performed by the server of FIG. 2 in accordance with the present invention.

FIG. 14 is a schematic illustration of an apparatus provided in accordance with an alternate embodiment of the present invention.

5 FIGS. 15A and 15B are a flow chart illustrating another embodiment of a method that is performed by a web browser in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

In accordance with the present invention, when a customer participates in a
10 first transaction with a first merchant, it is determined whether the transaction meets particular criteria, such as a minimum purchase price. If the customer satisfies the criteria, then the first merchant, known as an "outputting merchant", outputs an offer for a discount to the customer.

The offer defines conditions that the customer must meet in order to receive
15 the discount. The customer may meet the conditions while participating in a second transaction with a second merchant, known as a "soliciting merchant". For example, the customer may be required to spend at least a minimum purchase price at the second merchant on a particular day. Once the conditions are satisfied, the discount or other bonus is awarded to the customer. In one embodiment, the discount is applied by crediting
20 a credit card account used during the first transaction.

The present invention is particularly advantageous in that it allows various merchants to participate in mutually beneficial "co-branding" opportunities. Bonuses may

be paid for by the soliciting merchant or may be partially funded by both the soliciting merchant and the outputting merchant based on offers provided and/or offers redeemed.

Referring to FIG. 1, an apparatus 10 includes a server 12 that is in communication with store controllers 14, 16 and 18 by means of a network such as Microsoft First Datacorp ("MSFDC"). The server 12 directs the operation of, stores data from, and transmits data to the store controllers 14, 16 and 18. The server 12 is a computing device that can communicate with one or more store controllers. The server 12 may be a computer that is owned and/or operated by a credit card clearinghouse such as First Data Corporation.

Although three store controllers are shown in FIG. 1, any number of store controllers may be in communication with the server 12 without departing from the spirit and scope of the present invention. The store controllers 14, 16 and 18 are typically located in different stores, such as in different stores of a mall. Similarly, the store controllers 14, 16 and 18 may each control different catalog merchants. The store controllers may also be computers that direct an "online store", such as a web server that receives and processes orders for goods. The server 12 may perform many of the processes described below as performed by a store controller, especially those processes that are performed for more than one store controller. The server 12 may also store data that is used by more than one store controller.

Each store controller is in communication with one or more POS terminals. Specifically, the store controller 14 is in communication with POS terminals 20 and 22, the store controller 16 is in communication with a POS terminal 24 and the store controller 18

is in communication with POS terminals 26 and 28. The POS terminals may be, for example, the NCR 7454 manufactured by NCR Corporation or the IBM 4683 manufactured by International Business Machines. Each store controller directs the operation of, stores data from, and transmits data to the POS terminal(s) with which it is in communication. For example, as described below, each store controller may store a database of inventory to indicate to the POS terminals the prices of items purchased.

Referring to FIG. 2, the server 12 includes a processor 202 that comprises one or more conventional microprocessors such as the Intel® Pentium® microprocessor. The processor 202 is in communication with a data storage device 204, such as an appropriate combination of magnetic, optical and/or semiconductor memory. The processor 202 and the storage device 204 may each be (i) located entirely within a single computer or other computing device; (ii) connected to each other by a remote communication medium, such as a serial port cable, telephone line or radio frequency transceiver; or (iii) a combination thereof. For example, the server 12 may comprise one or more computers that are connected to a remote computer for maintaining databases.

The processor 202 is also in communication with an input device 206, a printer 208 and a display device 210. The input device 206 may comprise a keypad for transmitting input signals to the processor 202. Other types of input devices are known to those skilled in the art. The printer 208 is for registering indicia on paper or other material. The display device 210 is operative to display at least alphanumeric characters, and thus may be any of a number of known video monitors, liquid crystal displays ("LCD") or light

emitting diode ("LED") displays. Many types of input devices and display devices are known to those skilled in the art, and need not be described in detail herein.

The storage device 204 stores a server control program 220 for controlling the processor 202. The processor 202 performs instructions of the server control program 220 and thereby operates in accordance with the present invention and particularly in accordance with the methods described in detail herein. The server control program 220 furthermore includes program elements that may be necessary, such as an operating system and "device drivers" for allowing the processor 202 to interface with computer peripheral devices, such as the input device 206 and the display device 210. Appropriate device drivers and other necessary program elements are known to those skilled in the art and need not be described in detail herein.

The storage device 204 also stores (i) a merchant database 222, (ii) an offer criteria database 224, (iii) a discount database 226, (iv) an offer database 228, and (v) an offer summary database 230. In addition, the store controllers 14, 16 and 18 may query the server 12 to obtain information from the databases stored by the server. In another embodiment, one or more of the store controllers 14, 16 and 18 may store one or more of the databases 222, 224, 226, 228 and 230. The databases 222, 224, 226, 228 and 230 are described in detail below and depicted with exemplary entries in the accompanying figures. As will be understood by those skilled in the art, the schematic illustrations and accompanying descriptions of the databases presented herein are exemplary arrangements for stored representations of information. A number of other arrangements may be employed besides the tables shown. Similarly, the illustrated entries represent exemplary

information, but those skilled in the art will understand that the number and content of the entries can be different from those illustrated herein.

Referring to FIG. 3, the following description of the store controller 14 is likewise descriptive of the store controllers 16 and 18 (FIG. 1). The store controller 14 includes a processor 302 that comprises one or more conventional microprocessors such as the Intel® Pentium® microprocessor. The processor 302 is in communication with a data storage device 304, such as an appropriate combination of magnetic, optical and/or semiconductor memory. The processor 302 and the storage device 304 may each be (i) located entirely within a single computer or other computing device; (ii) connected to each other by a remote communication medium, such as a serial port cable, telephone line or radio frequency transceiver; or (iii) a combination thereof. For example, the store controller 14 may comprise one or more computers that are connected to a remote computer for maintaining databases.

The processor 302 is also in communication with an input device 306, a printer 308 and a display device 310. The input device 306 preferably comprises a keypad for transmitting input signals to the processor 302. The printer 308 is for registering indicia on paper or other material. The display device 310 is operative to display at least alphanumeric characters to the customer and/or cashier, and thus may be any of a number of known video monitors, liquid crystal displays ("LCD") or light emitting diode ("LED") displays. Many types of input devices, printers and display devices are known to those skilled in the art, and need not be described in detail herein.

The storage device 304 stores a store controller control program 320 for controlling the processor 302. The processor 302 performs instructions of the store controller control program 320 and thereby operates in accordance with the present invention and particularly in accordance with the methods described in detail herein. The store controller control program 320 furthermore includes program elements that may be necessary, such as an operating system and "device drivers" for allowing the processor 302 to interface with computer peripheral devices. Appropriate device drivers and other necessary program elements are known to those skilled in the art and need not be described in detail herein.

The storage device 304 also stores (i) an inventory database 322, and (ii) a customer database 324. In another embodiment, one or more of the POS terminals 20 and 22 may store one or more of the databases 322 and 324. The databases 322 and 324 are described in detail below and depicted with exemplary entries in the accompanying figures. As will be understood by those skilled in the art, the schematic illustrations and accompanying descriptions of the databases presented herein are exemplary arrangements for stored representations of information. A number of other arrangements may be employed besides the tables shown. Similarly, the illustrated entries represent exemplary information, but those skilled in the art will understand that the number and content of the entries can be different from those illustrated herein.

Referring to FIG. 4, the following description of the POS terminal 20 is likewise descriptive of the POS terminals 22, 24, 26 and 28 (FIG. 1). The POS terminal 20 includes a processor 402 that comprises one or more conventional microprocessors such as

the Intel® Pentium® microprocessor. The processor 402 is in communication with a data storage device 404, such as an appropriate combination of magnetic, optical and/or semiconductor memory. The processor 402 and the storage device 404 may each be (i) located entirely within a single computer or other computing device; (ii) connected to each other by a remote communication medium, such as a serial port cable, telephone line or radio frequency transceiver; or (iii) a combination thereof. For example, the POS terminal 20 may comprise one or more computers that are connected to a remote computer for maintaining databases.

The processor 402 is also in communication with an input device 406, a printer 408 and a display device 410. The input device 406 may comprise one or more of (i) a keypad for transmitting input signals to the processor 402; (ii) a card reader for reading magnetically-encoded information on cards passed therethrough, such as credit cards, frequent shopper cards and identity cards; (iii) an optical scanner for reading bar codes, such as bar codes registered on items of inventory; and (iv) a touch screen for generating signals that indicate when and where the screen has been touched, pressed or actuated. The printer 408 is for registering indicia on paper or other material, thereby printing receipts, coupons and vouchers as commanded by the processor 402. The display device 410 is operative to display at least alphanumeric characters to the customer and/or cashier, and thus may be any of a number of known video monitors, liquid crystal displays ("LCD") or light emitting diode ("LED") displays. Many types of input devices, printers and display devices are known to those skilled in the art, and need not be described in detail herein.

The storage device 404 stores a POS terminal control program 420 for controlling the processor 402. The processor 402 performs instructions of the POS terminal control program 420 and thereby operates in accordance with the present invention and particularly in accordance with the methods described in detail herein. The

- 5 POS terminal control program 420 furthermore includes program elements that may be necessary, such as an operating system and "device drivers" for allowing the processor 402 to interface with computer peripheral devices. Appropriate device drivers and other necessary program elements are known to those skilled in the art and need not be described in detail herein.

- 10 Referring to FIG. 5, a table 500 illustrates an embodiment of the merchant database 222 (FIG. 2). The table 500 includes entries 502, 504 and 506, each of which describes a merchant that owns, operates or controls a store controller. It will be understood by those skilled in the art that the table 500 may include any number of entries. The table 500 also defines fields for each of the entries 502, 504 and 506, which specify (i)
- 15 a merchant identifier 520 for uniquely identifying the merchant, (ii) a name 522 of the merchant, (iii) an address 524 of the merchant, (iv) a standard industry classification ("SIC") code 526 of the merchant, (v) billing instructions 528 indicating how the merchant will be billed, (vi) an amount owed 530 by the merchant, and (vii) a payment due date 532 on which the merchant must remit payment.

- 20 Referring to FIG. 6, a table 600 illustrates an embodiment of the offer criteria database 224 (FIG. 2). The table 600 includes entries 602, 604, 606 and 608, each of which describes criteria for defining when to provide an offer for a discount. The offer

is provided to a customer if the customer satisfies criteria while participating in a first transaction with a first merchant. The first merchant, known as an "outputting merchant", outputs the offer for a discount once the customer satisfies the criteria. It will be understood by those skilled in the art that the table 600 may include any number of entries.

- 5 The table 600 also defines fields for each of the entries 602, 604, 606 and 608, which specify (i) a criteria identifier 622 for uniquely identifying the criteria, (ii) a merchant identifier 624 that identifies the first (outputting) merchant, (iii) a required purchase price 626 that must be met in order to receive an offer for the discount, (iv) a time of the transaction 628 that must be met in order to receive an offer for the discount, and (v) a
10 discount identifier 630 that uniquely identifies the discount.

The customer is required to participate in a transaction at the first merchant in order to receive the offer for the discount. The customer may also be required to participate in the transaction at an indicated time, and the transaction may be required to have an indicated purchase price and include an indicated item. For example, the entry
15 606 indicates a discount identified by "D0001". A customer receives an offer for the discount "D0001" after having participated in a transaction for more than \$10.00 at merchant "M0001" on a weekday before 5:00 PM. Further criteria may be specified as will be understood by those skilled in the art.

Referring to FIG. 7, a table 700 illustrates an embodiment of the discount
20 database 226 (FIG. 2). The table 700 includes entries 702, 704, 706 and 708, each of which describes a discount that may be offered to a customer of a first merchant and conditions which the customer must meet at a second merchant in order to receive the

discount. The discount is typically awarded once the customer participates in a transaction with a second (soliciting) merchant, subject to the customer meeting the conditions. It will be understood by those skilled in the art that the table 700 may include any number of entries. The table 700 also defines fields for each of the entries 702, 704, 706 and 708, which specify (i) a discount identifier 720 for uniquely identifying the discount, (ii) a discount value 722, (iii) a merchant identifier 724 that identifies the second (soliciting) merchant, (iv) a time of the transaction 726 with the soliciting merchant, (v) a required purchase price 728 at the soliciting merchant, and (vi) a required item to purchase 730, if any. The time of the second transaction, required purchase price at the soliciting merchant, and required item to purchase each represent a condition which the customer must meet in order to receive the discount. Many other conditions may be used as well.

The discount value is typically expressed as, for example, a percentage off the previous (first) transaction during which the offer for the discount was made. The discount value may also be expressed as a percentage off the current transaction. The customer is required to participate in a transaction at the second merchant in order to receive the discount. The customer may also be required to participate in a transaction at an indicated time, having an indicated purchase price and including an indicated item. For example, the entry 708 indicates a discount of five percent off the previous transaction. A customer receives this discount after having participated in a transaction for more than \$10.00 at merchant "M0001" on Saturday between 9:00 and 12:00.

Referring to FIG. 8, a table 800 illustrates an embodiment of the offer database 228 (FIG. 2). The table 800 includes entries 802, 804 and 806, each of which

describes an offer for a discount that has been provided to a customer. It will be understood by those skilled in the art that the table 800 may include any number of entries. The table 800 also defines fields for each of the entries 802, 804 and 806, which specify (i) an offer identifier 820 for uniquely identifying the offer; (ii) a discount identifier 822 that
5 uniquely identifies the discount that has been offered; (iii) a criteria identifier 824 that uniquely identifies the criteria that the customer satisfied in order to be offered the discount; (iv) a customer identifier 826 that uniquely identifies the customer; (v) an offer status 828 which may indicate, for example, whether (and when) the offer is redeemed, unredeemed or expired; and (vi) a validity period 830 that indicates when the discount is
10 able to be redeemed.

Referring to FIG. 9, a table 900 illustrates an embodiment of the offer summary database 230 (FIG. 2). The table 900 includes entries 902, 904, 906 and 908, each of which describes summary information about discounts that have been offered to customers. It will be understood by those skilled in the art that the table 900 may include
15 any number of entries. The table 900 also defines fields for each of the entries 902, 904, 906 and 908, which specify (i) an discount identifier 920 for uniquely identifying the discount, (ii) a number of offers for the discount that were provided 922, (iii) a number of offers for the discount that were redeemed 924, (iv) a number of offers for the discount that were unredeemed 926 (neither redeemed nor expired), and (v) a number of offers for the
20 discount that were expired 928 (not redeemed before the end of the validity period of the offer). The number of offers for the discount that were provided is the sum of the number of offers for the discount that were redeemed, the number of offers for the discount that

were unredeemed and the number of offers for the discount that were expired. Those skilled in the art will understand that the summary information may also be organized by offer or by offer and discount jointly, rather than by discount as illustrated in FIG. 9. The information in the offer summary database 230 may be updated periodically (e.g. once per day) to reflect offers that have expired or been redeemed.

Referring to FIG. 10, a table 1000 illustrates an embodiment of the inventory database 322 (FIG. 3). The table 1000 includes entries 1002 and 1004, each of which describes an item of inventory that is sold by a merchant. It will be understood by those skilled in the art that the table 1000 may include any number of entries. The table 1000 also defines fields for each of the entries 1002 and 1004, which specify (i) an inventory identifier 1020 for uniquely identifying the item of inventory, (ii) a description 1022 of the item of inventory, (iii) a price 1024 for which the item of inventory is sold, and (iv) a quantity remaining 1026 of the item of inventory.

Referring to FIG. 11, a table 1100 illustrates an embodiment of the customer database 324 (FIG. 3). The table 1100 includes entries 1102, 1104 and 1106, each of which describes a customer of the merchant. The customer information is typically recorded by the customer database 324 upon becoming registered for a "frequent shopper program" of the store. It will be understood by those skilled in the art that the table 1100 may include any number of entries. The table 1100 also defines fields for each of the entries 1102, 1104 and 1106, which specify (i) a customer identifier 1120 for uniquely identifying the customer, (ii) a name 1122 of the customer, (iii) an address 1124 of the customer, and (iv) a credit card number 1126, if any, of the customer. In one embodiment,

the customer identifier may be the credit card number. Accordingly, a customer using a credit card could be identified even if he had not registered for a frequent shopper program. In another embodiment, the customer identifier is read from a license plate of a car. Such an embodiment may be used to identify customers of a "drive-through". A method and apparatus for reading a license plate to identify a customer are described in commonly-owned co-pending U.S. Patent Application Serial No. ___, entitled "METHOD AND APPARATUS FOR MAINTAINING A CUSTOMER DATABASE USING LICENSE PLATE SCANNING", Attorney Docket No. 98-059, filed on an even date herewith.

Referring to FIG. 12, a flow chart 1200 illustrates an embodiment of a method that is performed by the server 12 (FIG. 1) in accordance with the present invention. The server 12 creates in the discount database 226 (FIG. 2) an entry that indicates a soliciting merchant and a discount value (step 1202). Such an entry may be created, for example, in response to a request from the soliciting merchant or upon receiving a signal indicating that there are not many customers currently patronizing the soliciting merchant. The entry may also include conditions, such as time of transaction, purchase price and/or item to purchase.

The server 12 creates in the offer criteria database 224 (FIG. 2) an entry that associates the aforementioned entry in the discount database 226 with an outputting merchant (step 1204). This entry in the offer criteria database 224 may be created, for example, based on historical redemption of such discounts by customers of the outputting merchant. For example, if customers of merchant "A" have historically redeemed discounts at merchant "B", then merchant "A" may be a good candidate for an outputting

the customer uses the same credit card (or other identifier such as a frequent shopper identifier) in this second transaction, the server 12 can search the offer database 228 to find entries that indicate the customer identifier. Of these entries indicating the customer identifier, the server 12 determines which include a discount identifier that indicates the
5 soliciting merchant. The server selects the entry created in step 1208 (and possibly other entries) and therefrom determines the discount indicated by the entry created in step 1202.

In another embodiment, the server 12 recognizes that the customer participating in the second transaction is the same customer that has been offered a discount by a voucher printed during the first transaction. For example, a bar code printed
10 on the voucher can be scanned by a POS terminal during the second transaction. The bar code can indicate the appropriate entry in the offer database, and so the server may determine the discount for which the customer is eligible.

In response, the discount indicated by the entry created in step 1202 is applied (step 1212) and the customer receives the benefit of the discount. Typically, the
15 discount is applied by crediting the credit card account by the amount indicated by the discount. The offer summary database 230 (FIG. 2) is then updated to indicate that the discount has been redeemed (step 1214).

Referring to FIG. 13, a flow chart 1300 illustrates an embodiment of a method that is performed by the server 12 (FIG. 1) in accordance with the present
20 invention. The server 12 receives transaction data and a credit card number from "merchant 1" (step 1302), typically via a POS terminal in communication with a store controller of "merchant 1". The credit card number identifies a credit card account that a

customer has used to pay for the transaction. The server 12 in response searches the offer criteria database 224 (FIG. 2) for entries that indicate "merchant 1" (step 1304). For example, the field 624 (FIG. 6) of the table 600 (FIG. 6) indicates an outputting merchant for each entry.

5 As described above, each entry of the offer criteria database 224 also indicates criteria, such as a required purchase price or a required time of the transaction. The server 12 determines whether the transaction satisfies the criteria indicated by the entry (or entries) indicating "merchant 1" (step 1306). If not, then the transaction is processed conventionally (step 1308). If the transaction does satisfy the criteria, then the
10 server 12 outputs an offer for the discount indicated by the entry (step 1310). As described above, the discount can be indicated by an entry in the discount database 226 (FIG. 2) which indicates a discount value as well as a soliciting merchant ("merchant 2") and conditions which the customer must meet at the soliciting merchant in order to receive the discount. The server 12 creates an entry in the offer database 228 of FIG. 2 (step 1312) to
15 indicate the discount and the credit card number.

 In another embodiment, the step 1310 may comprise outputting a plurality of offers, each for a different discount. In such an embodiment, the customer would select which discount he preferred. The operator of the POS terminal could then indicate the selected discount, and thus indicate a selected entry of the of the offer criteria database
20 224.

 Subsequently, the customer participates in a transaction with "merchant 2" and uses the same credit card account to pay for the transaction. Accordingly, the server

12 receives transaction data and the credit card number from "merchant 2" (step 1314), typically via a POS terminal in communication with a store controller of "merchant 2". The server 12 in response searches the offer database 228 (FIG. 2) for entries that indicate "merchant 2" and the credit card number (step 1316). For example, the field 822 (FIG. 8) of the table 800 (FIG. 8) indicates a discount, and the discount in turn indicates a soliciting merchant (e.g. in the field 724 of FIG. 7). Similarly, the field 826 indicates customer identifiers, which may be credit card numbers.

The entry (or entries) that indicate "merchant 2" and the credit card number likewise indicate conditions. For example, the field 822 (FIG. 8) of the table 800 (FIG. 8) indicates a discount, and the discount in turn indicates conditions such as a required time of the transaction, a required purchase price and required items to purchase. If it is determined that the transaction with "merchant 2" does not satisfy the conditions (step 1318), then the transaction with "merchant 2" is processed conventionally (step 1308). However, if the conditions are satisfied, then the credit card account is credited with an amount defined by the discount (e.g. as defined by the discount value field 722 of FIG. 7).

The present invention may also be advantageously employed in an embodiment where the customer conducts transactions remotely via a personal computer or similar device for communicating remotely with a store controller. For example, a customer may use his computer to access the world wide web sites of merchants, indicate purchases, and pay by transmitting a credit card number to the merchants. In such an embodiment, any or all of the above-described databases could be stored (i) on the computer of an Internet service provider ("ISP"), (ii) on another computer on the Internet,

or (iii) locally on the consumer's computer (e.g. in the browser software or in a "cookie" or other file).

Referring to FIG. 14, an apparatus 1400 includes a user computer 1410 that is in communication with an Internet service provider computer 1420. The user computer 1410 is typically a personal computer operated by the customer and equipped to access the Internet or other electronic network. The Internet service provider computer 1420 is a computer that enables the user computer 1410 to access the Internet in a manner known in the art. The Internet service provider computer 1420 is in turn in communication through the Internet with a soliciting merchant computer 1430 and an outputting merchant computer 1440 in a manner known in the art. As is also known in the art, the soliciting merchant computer 1430 and the outputting merchant computer 1440 may control "web sites" that are respectively accessed by the user computer 1410 upon entering appropriate commands.

Referring to FIGS. 15A and 15B, a flow chart 1500 illustrates another embodiment of a method that is performed by the user computer 1410 (FIG. 14) in accordance with the present invention. The steps of this method may be performed in whole or in part by "browser" software, such as Netscape's Communicator® or Microsoft's Internet Explorer®, that is executed by the computer.

The user computer 1410 accesses the web site of an outputting merchant, "merchant 1" (step 1502) which allows customers to place orders online. The user computer 1410 receives transaction data and a credit card number from the customer (step 1504), and transmits the transaction data and credit card number to the outputting merchant

computer 1440 of FIG. 14 (step 1506). The credit card number identifies a credit card account that the customer has used to pay for the transaction. The customer may render payment in other ways besides identifying a credit card account to be charged.

Once the outputting merchant computer 1440 receives the transaction data,
5 it determines whether the customer has satisfied criteria, if any, to qualify for an offer for a discount. If so, then the user computer 1410 receives data from the outputting merchant computer 1440 that indicates the discount (step 1508). The discount and any associated conditions are stored (step 1510), for example, in a cookie or other file on the user computer 1410 or on the Internet service provider computer 1420 (FIG. 14). The
10 conditions may also be stored on the soliciting merchant computer 1430 (FIG. 14) or the outputting merchant computer 1440 (FIG. 14).

The user computer 1410 creates a link that displays an offer for the discount (step 1512). The link may be a hyperlink, banner advertisement, additional frame, new window, or other element on the web site of the outputting merchant. Alternatively, the
15 outputting merchant computer 1440 may alter the web site that is accessed by the user computer 1410. If the customer wishes to take advantage of the offer and make a purchase from another (soliciting) merchant, the user computer 1410 receives a command from the customer to connect to the link (step 1514) and thus access the web site of the soliciting merchant, "merchant 2" (step 1516).

20 The web site of "merchant 2" likewise allows customers to place orders online. The user computer 1410 receives transaction data and the credit card number from the customer (step 1518), and transmits this transaction data and credit card number to the

soliciting merchant computer 1430 of FIG. 14 (step 1520). If the transaction with the soliciting merchant does not satisfy the conditions (step 1522), then the transaction is processed in a conventional manner (step 1524). Otherwise, the credit card account is credited (step 1526) with an amount defined by the discount.

5 As described above, the discount is applied to the customer account upon completion of a second transaction at the soliciting merchant. However, in another embodiment of the present invention, the customer may be further required to complete another transaction at the first merchant. Accordingly, the customer would have to participate in a first transaction at a first merchant, a second transaction at a second
10 merchant, and then a third transaction at the first merchant. Although the customer may be required to meet certain conditions during the third transaction, typically the customer need not be so restrained.

The foregoing embodiment is particularly advantageous in an embodiment where the customer participates in transactions on web sites accessed by his computer. For
15 example, when participating in a first transaction at the web site of the first merchant, a link, such as a banner advertisement, may appear directing the customer to the web site of the second merchant. Upon participating in a transaction with the second merchant, another banner advertisement may appear directing the customer back to the web site of the first merchant. Upon accessing the web site of the first merchant again, the discount
20 could be applied.

In another embodiment of the present invention, the customer may be required to participate in a transaction with more than two merchants. For example, a

customer may participate in a first transaction at a first merchant. In response, the customer may be offered a discount for consummating a second transaction at a second merchant and a third transaction at a third merchant. In such an embodiment, the second merchant and third merchant could both be soliciting merchants.

5 The present invention is also applicable to functions besides transactions. In one embodiment, a customer participating in a first transaction with a first merchant may be offered a discount for completing a survey, rather than for participating in a second transaction. The customer could be provided with a survey at the same (first) merchant or at another merchant.

10 For example, after participating in a transaction at a first web site, the first web site would output an offer for a discount in exchange for completing a survey at a second web site. A link to the second web site would be generated to allow the customer to easily access the second web site. Upon accessing the second web site, the customer would be presented with one or more survey questions, and would be prompted to provide
15 answers to each questions. Upon providing an answer to all (or a minimum number of) survey questions, the discount would be applied.

 Although the present invention has been described with respect to a preferred embodiment thereof, those skilled in the art will note that various substitutions may be made to those embodiments described herein without departing from the spirit and
20 scope of the present invention. For example, although the discount may be a credit applied to a credit card account, there are many other discounts, such as the transfer of electronic cash or frequent shopper points to the customer.

What is claimed is:

1. A method for providing a discount, comprising:
receiving first transaction data representing a first transaction at a first merchant;
determining whether the first transaction data satisfies a criterion;
5 generating an offer for a discount if the first transaction data satisfies the criterion,
the discount including a condition and a second merchant; and
outputting an indication of the offer.
2. The method of claim 1, further comprising:
receiving second transaction data representing a second transaction at a second
10 merchant;
determining whether the second transaction data satisfies the condition; and
applying the discount to a customer account.
3. The method of claim 1, further comprising:
receiving a credit card number that identifies a credit card account.
- 15 4. The method of claim 3, in which the step of applying the discount comprises:
crediting the credit card account.
5. A method for providing a discount, comprising:

receiving transaction data representing a first transaction at a first merchant, the transaction data including a credit card identifier that identifies a credit card account; determining, based on the transaction data, a retroactive discount and a second merchant, the retroactive discount to be applied to the credit card account if the consumer

5 consummates a second transaction at the second merchant; and

outputting an indication of the retroactive discount and the second merchant.

6. The method of claim 5, further comprising:

receiving second transaction data representing a second transaction at a second merchant;

10 determining whether the second transaction data satisfies the condition; and applying the discount to a customer account.

7. The method of claim 5, in which the step of applying the discount comprises: crediting the credit card account.

8. A method for providing a discount, comprising:

15 receiving transaction data representing a first transaction at a first merchant, the transaction data including a transaction price;

determining, based on the transaction data, a discount and a second merchant, the discount having a value based on the transaction price; and

outputting an indication of the discount and the second merchant.

9. A method for providing a discount, comprising:
- receiving transaction data representing a transaction at a first merchant, the transaction data including a customer identifier;
 - determining, based on the customer identifier, whether the transaction data satisfies
- 5 a condition for a discount, the discount having a value based on a previous transaction price; and
- applying the discount to a customer account.
10. The method of claim 9, further comprising:
- determining the condition based on the transaction data.
- 10 11. A method for providing a discount, comprising:
- receiving transaction data representing a transaction at a first merchant;
 - receiving a customer identifier;
 - determining from the customer identifier a retroactive discount including a
- condition;
- 15 determining whether the transaction data satisfies the condition; and
- applying the retroactive discount to a customer account.
12. The method of claim 11, in which the customer identifier is a credit card number.
13. A method for providing a discount, comprising:

determining whether a customer has consummated a first transaction with a first predetermined merchant;

determining whether the customer has consummated a second transaction with a second predetermined merchant; and

- 5 providing a bonus to the customer if the customer has consummated the first transaction at the first predetermined merchant and the second transaction at the second predetermined merchant.

14. The method of claim 13 in which the bonus comprises a credit to an account in an amount that is based on a transaction price of the first transaction.

- 10 15. A method for providing a discount, comprising:
receiving first transaction data representing a first transaction at a first merchant;
determining, based on the first transaction data, a discount and a second merchant,
the discount being applicable if the consumer consummates a second transaction at the
second merchant;
15 outputting an indication of the discount and the second merchant;
receiving second transaction data representing the second transaction at the second
merchant after the step of receiving first transaction data; and
applying the discount.

16. A method for providing a discount, comprising:

- receiving first transaction data representing a first transaction at a first merchant,
the first transaction data including a credit card identifier that identifies a credit card
account;
- determining, based on the first transaction data, a discount, the discount including a
5 condition and a second merchant;
- outputting an indication of the discount;
- storing an indication of the discount and the credit card identifier in a database;
- receiving second transaction data representing a second transaction at the second
merchant, the second transaction data including the credit card identifier;
- 10 searching the database to select the discount based on the credit card identifier;
- determining whether the second transaction data satisfies the condition; and
- applying the discount to the credit card account if the second transaction data
satisfies the condition.
17. An apparatus for providing a discount, comprising:
- 15 means for receiving first transaction data representing a first transaction at a first
merchant;
- means for determining whether the first transaction data satisfies a criterion;
- means for generating an offer for a discount if the first transaction data satisfies the
criterion, the discount including a condition and a second merchant; and
- 20 means for outputting an indication of the offer.

18. An apparatus for providing a discount, comprising:

a storage device; and

a processor connected to the storage device,

the storage device storing a program for controlling the processor; and

- 5 the processor operative with the program to:

receive first transaction data representing a first transaction at a first

merchant;

determine whether the first transaction data satisfies a criterion;

generate an offer for a discount if the first transaction data satisfies the

- 10 criterion, the discount including a condition and a second merchant; and

output an indication of the offer.

19. A computer readable medium encoded with processing instructions for

implementing a method performed by a computer for providing a discount, the method comprising:

- 15 receiving first transaction data representing a first transaction at a first merchant;

determining whether the first transaction data satisfies a criterion;

generating an offer for a discount if the first transaction data satisfies the criterion,

the discount including a condition and a second merchant; and

outputting an indication of the offer.

- 20 20. An apparatus for providing a discount, comprising:

means for receiving transaction data representing a first transaction at a first merchant, the transaction data including a credit card identifier that identifies a credit card account;

means for determining, based on the transaction data, a retroactive discount and a second merchant, the retroactive discount to be applied to the credit card account if the consumer consummates a second transaction at the second merchant; and

means for outputting an indication of the retroactive discount and the second merchant.

21. An apparatus for providing a discount, comprising:

10 a storage device; and

a processor connected to the storage device,

the storage device storing a program for controlling the processor; and

the processor operative with the program to:

receive transaction data representing a first transaction at a first merchant,

15 the transaction data including a credit card identifier that identifies a credit card account;

determine, based on the transaction data, a retroactive discount and a second merchant, the retroactive discount to be applied to the credit card account if the consumer consummates a second transaction at the second merchant; and

output an indication of the retroactive discount and the second merchant.

22. A computer readable medium encoded with processing instructions for implementing a method performed by a computer for providing a discount, the method comprising:

- receiving transaction data representing a first transaction at a first merchant, the
5 transaction data including a credit card identifier that identifies a credit card account;
determining, based on the transaction data, a retroactive discount and a second
merchant, the retroactive discount to be applied to the credit card account if the consumer
consummates a second transaction at the second merchant; and
outputting an indication of the retroactive discount and the second merchant.

- 10 23. An apparatus for providing a discount, comprising:
means for receiving transaction data representing a first transaction at a first
merchant, the transaction data including a transaction price;
means for determining, based on the transaction data, a discount and a second
merchant, the discount having a value based on the transaction price; and
15 means for outputting an indication of the discount and the second merchant.

24. An apparatus for providing a discount, comprising:
a storage device; and
a processor connected to the storage device,
the storage device storing a program for controlling the processor; and
20 the processor operative with the program to:

receive transaction data representing a first transaction at a first merchant,
the transaction data including a transaction price;

determine, based on the transaction data, a discount and a second merchant,
the discount having a value based on the transaction price; and

5 output an indication of the discount and the second merchant.

25. A computer readable medium encoded with processing instructions for
implementing a method performed by a computer for providing a discount, the method
comprising:

receiving transaction data representing a first transaction at a first merchant, the
10 transaction data including a transaction price;

determining, based on the transaction data, a discount and a second merchant, the
discount having a value based on the transaction price; and

outputting an indication of the discount and the second merchant.

26. An apparatus for providing a discount, comprising:

15 means for receiving transaction data representing a transaction at a first merchant,
the transaction data including a customer identifier;

means for determining, based on the customer identifier, whether the transaction
data satisfies a condition for a discount, the discount having a value based on a previous
transaction price; and

20 means for applying the discount to a customer account.

27. An apparatus for providing a discount, comprising:

a storage device; and

a processor connected to the storage device,

the storage device storing a program for controlling the processor; and

5 the processor operative with the program to:

receive transaction data representing a transaction at a first merchant, the
transaction data including a customer identifier;

determine, based on the customer identifier, whether the transaction data
satisfies a condition for a discount, the discount having a value based on a previous

10 transaction price; and

apply the discount to a customer account.

28. A computer readable medium encoded with processing instructions for
implementing a method performed by a computer for providing a discount, the method
comprising:

15 receiving transaction data representing a transaction at a first merchant, the
transaction data including a customer identifier;

determining, based on the customer identifier, whether the transaction data satisfies
a condition for a discount, the discount having a value based on a previous transaction
price; and

20 applying the discount to a customer account.

29. An apparatus for providing a discount, comprising:
- means for receiving transaction data representing a transaction at a first merchant;
 - means for receiving a customer identifier;
 - means for determining from the customer identifier a retroactive discount including

5 a condition;

- means for determining whether the transaction data satisfies the condition; and
- means for applying the retroactive discount to a customer account.

30. An apparatus for providing a discount, comprising:

a storage device; and

10 a processor connected to the storage device,

the storage device storing a program for controlling the processor; and

the processor operative with the program to:

receive transaction data representing a transaction at a first merchant;

receive a customer identifier;

15 determine from the customer identifier a retroactive discount including a
condition;

determine whether the transaction data satisfies the condition; and

apply the retroactive discount to a customer account.

31. A computer readable medium encoded with processing instructions for implementing a method performed by a computer for providing a discount, the method comprising:
- receiving transaction data representing a transaction at a first merchant;
 - 5 receiving a customer identifier;
 - determining from the customer identifier a retroactive discount including a condition;
 - determining whether the transaction data satisfies the condition; and
 - applying the retroactive discount to a customer account.
- 10 32. An apparatus for providing a discount, comprising:
- means for determining whether a customer has consummated a first transaction with a first predetermined merchant;
 - means for determining whether the customer has consummated a second transaction with a second predetermined merchant; and
 - 15 means for providing a bonus to the customer if the customer has consummated the first transaction at the first predetermined merchant and the second transaction at the second predetermined merchant.
33. An apparatus for providing a discount, comprising:
- a storage device; and
 - 20 a processor connected to the storage device,

the storage device storing a program for controlling the processor; and
the processor operative with the program to:

determine whether a customer has consummated a first transaction with a
first predetermined merchant;

5 determine whether the customer has consummated a second transaction
with a second predetermined merchant; and

provide a bonus to the customer if the customer has consummated the first
transaction at the first predetermined merchant and the second transaction at the second
predetermined merchant.

10 34. A computer readable medium encoded with processing instructions for
implementing a method performed by a computer for providing a discount, the method
comprising:

determining whether a customer has consummated a first transaction with a first
predetermined merchant;

15 determining whether the customer has consummated a second transaction with a
second predetermined merchant; and

providing a bonus to the customer if the customer has consummated the first
transaction at the first predetermined merchant and the second transaction at the second
predetermined merchant.

20 35. An apparatus for providing a discount, comprising:

means for receiving first transaction data representing a first transaction at a first merchant;

means for determining, based on the first transaction data, a discount and a second merchant, the discount being applicable if the consumer consummates a second transaction

5 at the second merchant;

means for outputting an indication of the discount and the second merchant;

means for receiving second transaction data representing the second transaction at the second merchant after the step of receiving first transaction data; and

means for applying the discount.

10 36. An apparatus for providing a discount, comprising:

a storage device; and

a processor connected to the storage device,

the storage device storing a program for controlling the processor; and

the processor operative with the program to:

15 receive first transaction data representing a first transaction at a first merchant;

determine, based on the first transaction data, a discount and a second merchant, the discount being applicable if the consumer consummates a second transaction at the second merchant;

20 output an indication of the discount and the second merchant;

receive second transaction data representing the second transaction at the second merchant after the step of receiving first transaction data; and
apply the discount.

37. A computer readable medium encoded with processing instructions for
5 implementing a method performed by a computer for providing a discount, the method comprising:
receiving first transaction data representing a first transaction at a first merchant;
determining, based on the first transaction data, a discount and a second merchant,
the discount being applicable if the consumer consummates a second transaction at the
10 second merchant;
outputting an indication of the discount and the second merchant;
receiving second transaction data representing the second transaction at the second merchant after the step of receiving first transaction data; and
applying the discount.
- 15 38. An apparatus for providing a discount, comprising:
means for receiving first transaction data representing a first transaction at a first merchant, the first transaction data including a credit card identifier that identifies a credit card account;
means for determining, based on the first transaction data, a discount, the discount
20 including a condition and a second merchant;

means for outputting an indication of the discount;

means for storing an indication of the discount and the credit card identifier in a database;

means for receiving second transaction data representing a second transaction at the
5 second merchant, the second transaction data including the credit card identifier;

means for searching the database to select the discount based on the credit card identifier;

means for determining whether the second transaction data satisfies the condition;
and

10 means for applying the discount to the credit card account if the second transaction data satisfies the condition.

39. An apparatus for providing a discount, comprising:

a storage device; and

a processor connected to the storage device,

15 the storage device storing a program for controlling the processor; and

the processor operative with the program to:

receive first transaction data representing a first transaction at a first merchant, the first transaction data including a credit card identifier that identifies a credit card account;

20 determine, based on the first transaction data, a discount, the discount including a condition and a second merchant;

- output an indication of the discount;
store an indication of the discount and the credit card identifier in a
database;
- receive second transaction data representing a second transaction at the
5 second merchant, the second transaction data including the credit card identifier;
search the database to select the discount based on the credit card identifier;
determine whether the second transaction data satisfies the condition; and
apply the discount to the credit card account if the second transaction data
satisfies the condition.
- 10 40. A computer readable medium encoded with processing instructions for
implementing a method performed by a computer for providing a discount, the method
comprising:
receiving first transaction data representing a first transaction at a first merchant,
the first transaction data including a credit card identifier that identifies a credit card
15 account;
determining, based on the first transaction data, a discount, the discount including a
condition and a second merchant;
outputting an indication of the discount;
storing an indication of the discount and the credit card identifier in a database;
20 receiving second transaction data representing a second transaction at the second
merchant, the second transaction data including the credit card identifier;

searching the database to select the discount based on the credit card identifier;
determining whether the second transaction data satisfies the condition; and
applying the discount to the credit card account if the second transaction data
satisfies the condition.

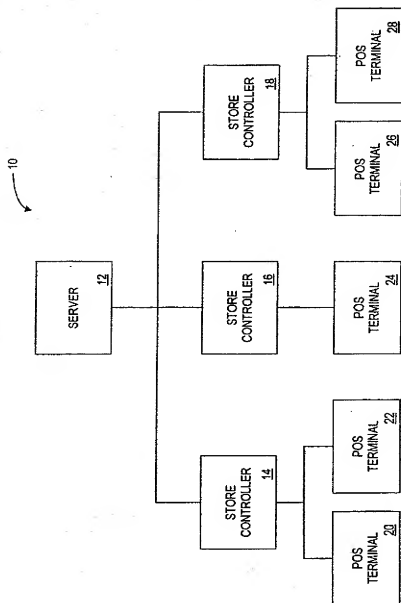


FIG. 1

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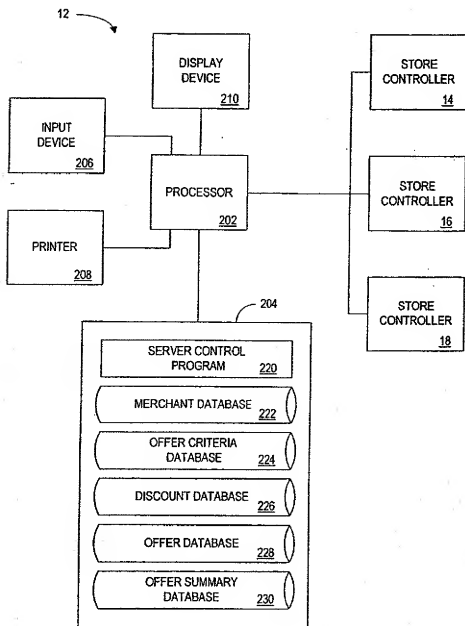


FIG. 2

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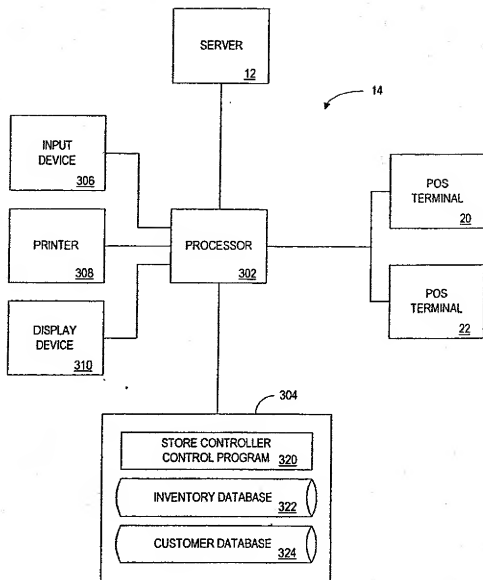


FIG. 3

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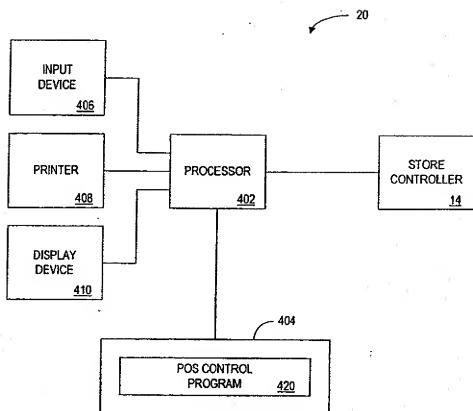


FIG. 4

500

MERCHANT IDENTIFIER	NAME	ADDRESS	SIC CODE	BILLING INSTRUCTIONS	AMOUNT OWED	PAYMENT DUE DATE
502 M0001	CORP. X	524 123 MAIN ST. CITY, USA	528 1111	528 BILL TO MAILING ADDRESS	530 \$807.00	532 11/10/99
504 M0002	STORE Y	8910 RIVER PL. SUBURB, USA	2222	BILL TO 1 MAIN ST. NOWHERE, USA	\$350.00	11/22/99
506 M0003	OUTLET Z	248 STATE HWY. TOWN, USA	3333	BILL TO MAILING ADDRESS	\$0.00	NONE

FIG. 5

600

CRITERIA IDENTIFIER	MERCHANT 1 IDENTIFIER	REQUIRED PURCHASE PRICE AT MERCHANT 1	TIME OF TRANSACTION AT MERCHANT 1	DISCOUNT IDENTIFIER
622	624	626	628	630
C0001	M0003	> \$20	ANY	D0004
C0002	M0003	ANY	ANY	D0003
C0003	M0001	> \$10	WEEKDAYS BEFORE 5:00 PM	D0001
C0004	M0002	ANY	SATURDAY & SUNDAY	D0004

602

604

606

608

FIG. 6

700

DISCOUNT IDENTIFIER	DISCOUNT VALUE	MERCHANT 2 IDENTIFIER	TIME OF TRANSACTION AT MERCHANT 2	REQUIRED PURCHASE PRICE AT MERCHANT 2	REQUIRED ITEM(S) TO PURCHASE
720	722	724	726	728	730
D0001	10% OFF	M0002	ANY	> \$5.00	NONE
D0002	\$15 OFF	M0003	ANY	NONE	ITEM # 12345678
D0003	1/2 OFF SECOND PURCHASE PRICE, UP TO \$40	M0003	MONDAY - FRIDAY	NONE	NONE
D0004	5% OFF	M0001	SATURDAY, 9:00 - 12:00	> \$10.00	NONE

702

704

706

708

FIG. 7




Diagram illustrating a data structure (800) organized as a table with five columns and four rows. The columns are labeled with identifiers 820, 822, 824, 826, and 830. The rows are labeled with identifiers 802, 804, and 805. The table contains the following data:

OFFER IDENTIFIER 820	DISCOUNT IDENTIFIER 822	CRITERIA IDENTIFIER 824	CUSTOMER IDENTIFIER 826	OFFER STATUS 828	VALIDITY PERIOD 830
11001	D0003	C0001	NONE	REDEEMED 3/21/99	3/1/99 - 3/29/99
11002	D0001	C0004	1111-1111- 1111-1111	UNREDEEMED	3/20/99 - 4/20/99
11003	D0004	C0004	2222-2222- 2222-2222	EXPIRED 1/4/99	1/1/99 - 1/4/99

FIG. 8

900

DISCOUNT IDENTIFIER 920	NUMBER OF OFFERS PROVIDED 922	NUMBERS OF OFFERS REDEEMED 924	NUMBER OF OFFERS UNREDEEMED 926	NUMBER OF OFFERS EXPIRED 928
D0001	24	12	3	9
D0002	310	200	100	10
D0003	82	10	20	52
D0004	8	10	1	6

902
904
906
908

FIG. 9

1000

INVENTORY IDENTIFIER	DESCRIPTION	PRICE	QUANTITY REMAINING
1020	1022	1024	1026
12345678	MEN'S SHOES	\$150.00	32
12345679	TUBE SOCKS	\$8.50	185

1002

1004

FIG. 10

1100

CUSTOMER IDENTIFIER 1120	NAME 1122	ADDRESS 1124	CREDIT CARD NUMBER 1126
99123	DEAN GREEN	5500 MAIN ST. CITY, USA	-
99124	DAMASCUS LEK	828 STATE ST. SUBURG, USA	1111-2222- 3333-4444
99125	JOHN GOODE	342 PROSPECT ST. TOWN, USA	-

1102

1104

1106

FIG. 11

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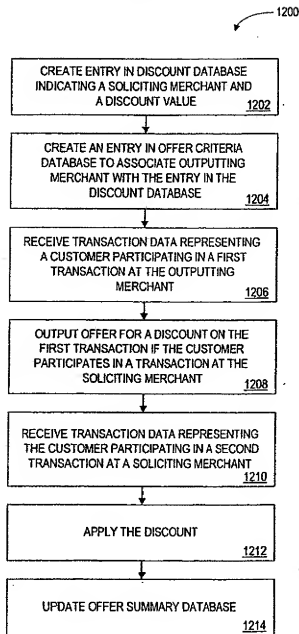


FIG. 12

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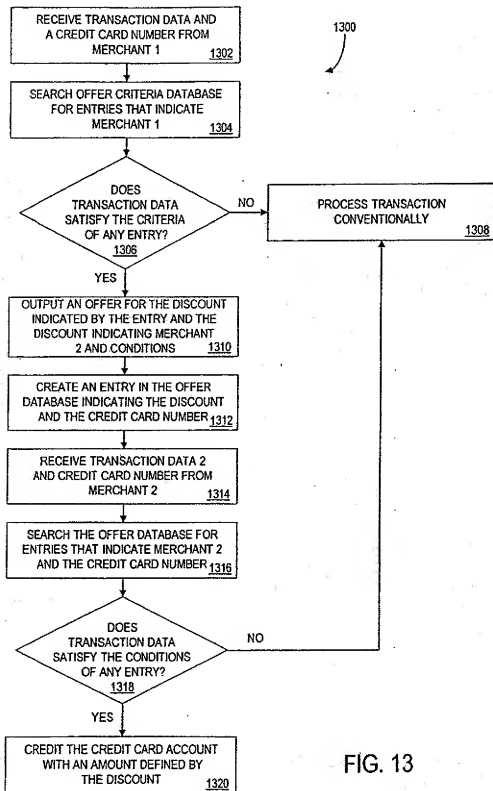


FIG. 13

14 / 16

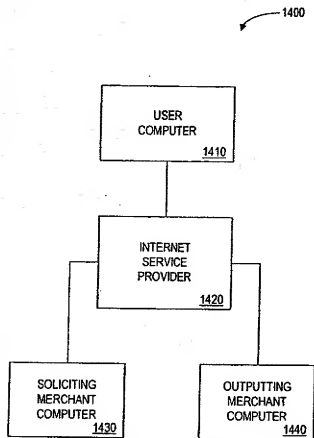


FIG. 14

15 / 16

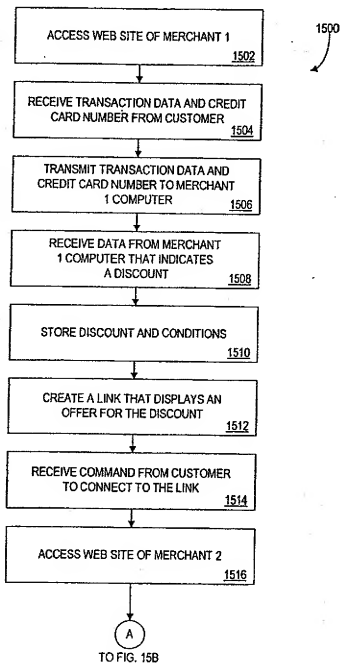


FIG. 15A

16/16

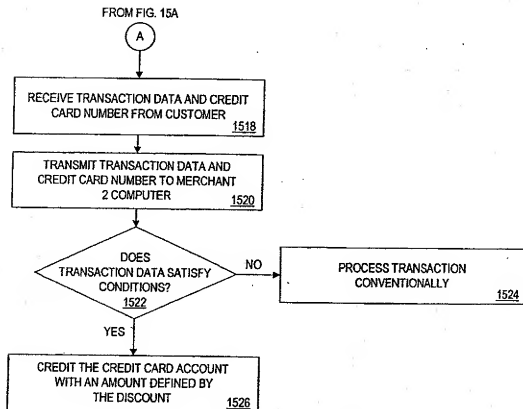


FIG. 15B

INTERNATIONAL SEARCH REPORT

Info. Cont. Application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 06050 A (FIRST DATA CORP) 12 February 1998 (1998-02-12) abstract; claim 1 page 1, line 4 - line 12 page 2, line 18 - line 28 page 3, line 15 - page 4, line 7	1-40
X	WO 98 28699 A (MERIDIAN ENTERPRISES INC) 2 July 1998 (1998-07-02) abstract page 1, line 10 - page 2, line 23 -/-	1-40

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

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E earlier document but published on or after the international filing date

I document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, each combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

16 March 2000

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INTERNATIONAL SEARCH REPORT

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 537 314 A (KANTER MARK W) 16 July 1996 (1996-07-16) abstract; claim 1 column 6, line 49 - line 67 column 7, line 25 - line 40 column 8, line 50 - column 9, line 30 column 16, line 35 - column 17, line 22	1-40

INTERNATIONAL SEARCH REPORT

Information on patent family members

Initial and Application No

PCT/US 99/21720

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9806050 A	12-02-1998	AU 3969197 A EP 0978076 A	25-02-1998 09-02-2000
WO 9828699 A	02-07-1998	AU 3497397 A CA 2210218 A	17-07-1998 24-06-1998
US 5537314 A	16-07-1996	NONE	

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(54) Method and system for placing a purchase order via a communications network

(57) A method and system for placing an order to purchase an item via the Internet. The order is placed by a purchaser at a client system and received by a server system. The server system receives purchaser information including identification of the purchaser, payment information, and shipment information from the client system. The server system then assigns a client identifier to the client system and associates the assigned client identifier with the received purchaser information. The server system sends to the client system the assigned client identifier and an HTML document identifying the item and including an order button. The client system receives and stores the assigned client identifier and receives and displays the HTML document. In response to the selection of the order button, the client system sends to the server system a request to purchase the identified item. The server system receives the request and combines the purchaser information associated with the client identifier of the client system to generate an order to purchase the item in accordance with the billing and shipment information whereby the purchaser effects the ordering of the product by selection of the order button.

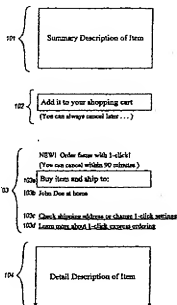


Fig. 1A

Description

TECHNICAL FIELD

[0001] The present invention relates to a computer method and system for placing an order and, more particularly, to a method and system for ordering items over the Internet.

BACKGROUND OF THE INVENTION

[0002] The Internet comprises a vast number of computers and computer networks that are interconnected through communication links. The interconnected computers exchange information using various services, such as electronic mail, Gopher, and the World Wide Web ("WWW"). The WWW service allows a server computer system (i.e., Web server or Web site) to send graphical Web pages of information to a remote client computer system. The remote client computer system can then display the Web pages. Each resource (e.g., computer or Web page) of the WWW is uniquely identifiable by a Uniform Resource Locator ("URL"). To view a specific Web page, a client computer system specifies the URL for that Web page in a request (e.g., a HyperText Transfer Protocol ("HTTP") request). The request is forwarded to the Web server that supports that Web page. When that Web server receives the request, it sends that Web page to the client computer system. When the client computer system receives that Web page, it typically displays the Web page using a browser. A browser is a special-purpose application program that effects the requesting of Web pages and the displaying of Web pages.

[0003] Currently, Web pages are typically defined using HyperText Markup Language ("HTML"). HTML provides a standard set of tags that define how a Web page is to be displayed. When a user indicates to the browser to display a Web page, the browser sends a request to the server computer system to transfer to the client computer system an HTML document that defines the Web page. When the requested HTML document is received by the client computer system, the browser displays the Web page as defined by the HTML document. The HTML document contains various tags that control the displaying of text, graphics, controls, and other features. The HTML document may contain URLs of other Web pages available on that server computer system or other server computer systems.

[0004] The World Wide Web is especially conducive to conducting electronic commerce. Many Web servers have been developed through which vendors can advertise and sell product. The products can include items (e.g., music) that are delivered electronically to the purchaser over the Internet and items (e.g., books) that are delivered through conventional distribution channels (e.g., a common carrier). A server computer system may provide an electronic version of a catalog that lists

the items that are available. A user, who is a potential purchaser, may browse through the catalog using a browser and select various items that are to be purchased. When the user has completed selecting the items to be purchased, the server computer system then prompts the user for information to complete the ordering of the items. This purchaser-specific order information may include the purchaser's name, the purchaser's credit card number, and a shipping address for the order. The server computer system then typically confirms the order by sending a confirming Web page to the client computer system and schedules shipment of the items.

[0005] Since the purchaser-specific order information contains sensitive information (e.g., a credit card number), both vendors and purchasers want to ensure the security of such information. Security is a concern because information transmitted over the Internet may pass through various intermediate computer systems on its way to its final destination. The information could be intercepted by an unscrupulous person at an intermediate system. To help ensure the security of the sensitive information, various encryption techniques are used when transmitting such information between a client computer system and a server computer system. Even though such encrypted information can be intercepted, because the information is encrypted, it is generally useless to the interceptor. Nevertheless, there is always a possibility that such sensitive information may be successfully decrypted by the interceptor. Therefore, it would be desirable to minimize the sensitive information transmitted when placing an order.

[0006] The selection of the various items from the electronic catalogs is generally based on the "shopping cart" model. When the purchaser selects an item from the electronic catalog, the server computer system metaphorically adds that item to a shopping cart. When the purchaser is done selecting items, then all the items in the shopping cart are "checked out" (i.e., ordered) when the purchaser provides billing and shipment information. In some models, when a purchaser selects any one item, then that item is "checked out" by automatically prompting the user for the billing and shipment information. Although the shopping cart model is very flexible and intuitive, it has a downside in that it requires many interactions by the purchaser. For example, the purchaser selects the various items from the electronic catalog, and then indicates that the selection is complete. The purchaser is then presented with an order Web page that prompts the purchaser for the purchaser-specific order information to complete the order. That Web page may be prefilled with information that was provided by the purchaser when placing another order. The information is then validated by the server computer system, and the order is completed. Such an ordering model can be problematic for a couple of reasons. If a purchaser is ordering only one item, then the overhead of confirming the various steps of the ordering

process and waiting for, viewing, and updating the purchaser-specific order information can be much more than the overhead of selecting the item itself. This overhead makes the purchase of a single item cumbersome. Also, with such an ordering model, each time an order is placed sensitive information is transmitted over the Internet. Each time the sensitive information is transmitted over the Internet, it is susceptible to being intercepted and decrypted.

SUMMARY OF THE INVENTION

[0007] An embodiment of the present invention provides a method and system for ordering an item from a client system. The client system is provided with an identifier that identifies a customer. The client system displays information that identifies the item and displays an indication of an action (e.g., a single action such as clicking a mouse button) that a purchaser is to perform to order the identified item. In response to the indicated action being performed, the client system sends to a server system the provided identifier and a request to order the identified item. The server system uses the identifier to identify additional information needed to generate an order for the item and then generates the order.

[0008] The server system receives and stores the additional information for customers using various computer systems so that the server system can generate such orders. The server system stores the received additional information in association with an identifier of the customer and provides the identifier to the client system. When requested by the client system, the server system provides information describing the item to the requesting client system. When the server system receives a request from a client system, the server system combines the additional information stored in association with the identifier included in the request to effect the ordering of the item.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009]

Figures 1A-1C illustrate single-action ordering in one embodiment of the present invention.

Figure 2 is a block diagram illustrating an embodiment of the present invention.

Figure 3 is a flow diagram of a routine that enables single-action ordering for a customer.

Figure 4 is a flow diagram of a routine to generate a Web page in which single-action ordering is enabled.

Figure 5 is a flow diagram of a routine which processes a single-action order.

Figure 6 is a flow diagram of a routine for generating a single-action order summary Web page.

Figure 7 is a flow diagram of a routine that imple-

ments an expedited order selection algorithm.

Figures 8A-8C illustrate a hierarchical data entry mechanism in one embodiment.

Figures 9A-9B illustrate use of a single-action to give an item as a gift to one or more recipients.

Figure 10 illustrates a grid for creation of a group and the entry of identifying information for recipients associated with the group (i.e., members).

Figure 11 is a flow diagram of the overall flow of the gift delivery system.

Figure 12 is a block diagram illustrating the components of the gift delivery system.

Figure 13 is a state diagram illustrating the various states of a gift order.

Figure 14 is a flow diagram of a routine that controls the receiving of gift orders.

Figure 15 is a flow diagram of a routine that controls the attempt at first contact of the recipient.

Figure 16 is a flow diagram of a routine that controls the processing of the initial voice telephone contact.

Figure 17 is a flow diagram of a routine that controls the processing of the initial response.

Figure 18 is flow diagram of a routine that controls the collecting of additional contact information.

Figure 19 is a flow diagram of a routine that controls the verifying of the delivery information.

DETAILED DESCRIPTION OF THE INVENTION

[0010] The present invention provides a method and system for single-action ordering of items in a client/server environment. The single-action ordering system of the present invention reduces the number of purchaser interactions needed to place an order and reduces the amount of sensitive information that is transmitted between a client system and a server system. In one embodiment, the server system assigns a unique client identifier to each client system. The server system also stores purchaser-specific order information for various potential purchasers. The purchaser-specific order information may have been collected from a previous order placed by the purchaser. The server system maps each client identifier to a purchaser that may use that client system to place an order. The server system may map the client identifiers to the purchaser who last placed an order using that client system. When a purchaser wants to place an order, the purchaser uses a client system to send the request for information describing the item to be ordered along with its client identifier. The server system determines whether the client identifier for that client system is mapped to a purchaser. If so mapped, the server system determines whether single-action ordering is enabled for that purchaser at that client system. If enabled, the server system sends the requested information (e.g., via a Web page) to the client computer system along with an indication of the single action to perform to place the order for the item. When single-action ordering is enabled, the

purchaser need only perform a single action (e.g., click a mouse button) to order the item. When the purchaser performs that single action, the client system notifies the server system. The server system then completes the order by adding the purchaser-specific order information for the purchaser that is mapped to that client identifier to the item order information (e.g., product identifier and quantity). Thus, once the description of an item is displayed, the purchaser need only take a single action to place the order to purchase that item. Also, since the client identifier identifies purchaser-specific order information already stored at the server system, there is no need for such sensitive information to be transmitted via the Internet or other communications medium.

[0011] Figures 1A-1C illustrate single-action ordering in one embodiment of the present invention. Figure 1A illustrates the display of a Web page describing an item that may be ordered. This example Web page was sent from the server system to the client system when the purchaser requested to review detailed information about the item. This example Web page contains a summary description section 101, a shopping cart section 102, a single-action ordering section 103, and a detailed description section 104. One skilled in the art would appreciate that these various sections can be omitted or rearranged or adapted in various ways. In general, the purchaser need only be aware of the item or items to be ordered by the single action and of the single action needed to place the order. The summary description and the detailed description sections provide information that identifies and describes the item(s) that may be ordered. The shopping cart section provides the conventional capability to add the described item to a shopping cart. The server system adds the summary description, the detailed description, and the shopping cart sections to each Web page for an item that may be ordered. The server system, however, only adds the single-action ordering section when single-action ordering is enabled for that purchaser at that client system. (One skilled in the art would appreciate that a single Web page on the server system may contain all these sections but the single-action ordering section can be selectively included or excluded before sending the Web page to the client system.) This example single-action ordering section allows the purchaser to specify with a single click of a mouse button to order the described item. Once the purchaser clicks the mouse button, the item is ordered, unless the purchaser then takes some action to modify the order. The single-action ordering section contains a single-action ordering button 103a, purchaser identification subsection 103b, and single-action ordering information subsections 103c and 103d. The purchaser information subsection displays enough information so that the purchaser can verify that the server system correctly recognizes the purchaser. To reduce the chances of sensitive information being intercepted, the server system sends only

enough information so that the purchaser is confident that the server system correctly identified the purchaser but yet not enough information to be useful to an unscrupulous interceptor. The additional information subsections allow the purchaser to obtain various settings or obtain more information related to the single-action ordering. If the purchaser wants to verify the shipping address, the purchaser can select the "check shipping address" label. In response to this selection, the server system may require the purchaser to perform a "login" so that the identity of the purchaser can be verified before the shipping information is viewed or modified. The server system then sends a Web page to the client system for display and possible modification of the shipping address. In this way, the transmitting of the sensitive shipping address can be avoided unless requested by the verified purchaser.

[0012] When the purchaser selects the single-action ordering button, the client system sends a message to the server system requesting that the displayed item be ordered. After the server system processes the message, the server system provides to the client system a new Web page that confirms receipt of the single-action order. Figure 1B illustrates the display of a Web page confirming a single-action order. The confirming Web page contains essentially the same information as the Web page describing the item (i.e., Figure 1A) except that an order confirmation section 105 is displayed at the top of the Web page. The order confirmation section confirms that the order has been placed and provides an opportunity for the purchaser to review and change the single-action order. Alternatively, the confirming Web page can be identical to the Web page describing the item (i.e., Figure 1A), except that the single-action ordering button is replaced with a message confirming the order.

[0013] If a single-action ordering is not currently enabled for the client system but could be enabled, then the server system can generate a Web page like Figure 1A, except that the single-action ordering button 103a is replaced by a single-action ordering enable button. Such a replacement button could contain text instructing the purchaser to click on the button to enable single-action ordering. When the purchaser clicks on that button, the server system would send the Web page of Figure 1A to be displayed. Single-action ordering can be enabled whenever the server system has stored sufficient purchaser-specific order information for that client system to complete a single-action order. If the server system does not have sufficient information, then when the purchaser selects the single-action ordering button, the server system can provide a Web page to collect the additional information that is needed. The server system may require the purchases to "login" so that the identity of the purchaser can be verified before the single-action ordering is enabled.

[0014] To help minimize shipping costs and purchaser confusion, the server system may combine various sin-

gle-action orders into a multiple-item order. For example, if a purchaser orders one item using the single-action ordering and five minutes later orders another item using the single-action ordering, then those orders may be cost effectively combined into a single order for shipping. The server system combines the single-action orders when their expected ship dates are similar. For example, if one item is immediately available and the other item will be available in one day, then the two single-action orders may be cost-effectively combined. However, if the other item will not be available for two weeks, then the two single-item orders would not be combined. Figure 1C illustrates the display of a Web page representing four single-action orders that have been combined into two separate multiple-item orders based on the availability of the items. The order information 106 indicates that item 1 and item 2, which will be available in three or fewer days, have been combined into one order. The order information 107 indicates that items 3 and 4, which will not be available within one week, are combined into a separate order. In one embodiment, the server system may combine single-action orders that are placed within a certain time period (e.g., 90 minutes). Also, the server system may combine or divide orders when the orders are scheduled for shipment based on the then current availability of the items ordered. This delayed modification of the orders is referred to as "expedited order selection" and is described below in detail.

[0015] Figure 2 is a block diagram illustrating an embodiment of the present invention. This embodiment supports the single-action ordering over the Internet using the World Wide Web. The server system 210 includes a server engine 211, a client identifier/customer table 212, various Web pages 213, a customer database 214, an order database 215, and an inventory database 216. The server engine receives HTTP requests to access Web pages identified by URLs and provides the Web pages to the various client systems. Such an HTTP request may indicate that the purchaser has performed the single action to effect single-action ordering. The customer database contains customer information for various purchasers or potential purchasers. The customer information includes purchaser-specific order information such as the name of the customer, billing information, and shipping information. The order database 215 contains an entry for each order that has not yet been shipped to a purchaser. The inventory database 216 contains a description of the various items that may be ordered. The client identifier/customer table 212 contains a mapping from each client identifier, which is a globally unique identifier that uniquely identifies a client system, to the customer last associated with that client system. The client system 220 contains a browser and its assigned client identifier. The client identifier is stored in a file, referred to as a "cookie." In one embodiment, the server system assigns and sends the client identifier to the client sys-

tem once when the client system first interacts with the server system. From then on, the client system includes its client identifier with all messages sent to the server system so that the server system can identify the source of the message. The server and client systems interact by exchanging information via communications link 230, which may include transmission over the Internet.

[0016] One skilled in the art would appreciate that the single-action ordering techniques can be used in various environments other than the Internet. For example, single-action ordering can also be in an electronic mail environment in which an item is described in an electronic mail message along with an indication of the single action that is to be performed to effect the ordering of the item. Also, various communication channels may be used such as local area network, wide area network, or point-to-point dial up connection. Also, a server system may comprise any combination of hardware or software that can generate orders in response to the single action being performed. A client system may comprise any combination of hardware or software that can interact with the server system. These systems may include television-based systems or various other consumer products through which orders may be placed.

[0017] Figure 3 is a flow diagram of a routine that enables single-action ordering for a customer. To enable single-action ordering, a server system needs to have information about the customer that is equivalent to the purchaser-specific order information. The server system can obtain this information in various ways. First, the server system could ask the customer if they would like to have single-action ordering enabled. If so, then the server system could prompt the customer using a Web page for the purchaser-specific order information. Second, the server system could also save the purchaser-specific order information collected when an order is placed conventionally. The server system could, either automatically or with the customer's assent, enable single-action ordering. In step 301, the server system retrieves the client identifier that was sent by the client system. In step 302, the server system updates the client identifier/customer table to indicate that the generated client identifier has been associated with that customer. In step 303, the server system sets a flag indicating that single-action ordering is enabled for that client identifier and that customer combination. That flag may be stored in the client identifier/customer table. In step 304, the server system supplies a confirming Web page to the client system. The next time a purchaser attempts to order an item, the client system will supply its client identifier to the server system. If single-action ordering is enabled for that purchaser, the server system will assume that the purchaser is the customer associated with that client identifier in the client identifier/customer table. Thus, a purchaser may not want to allow the server system to enable single-action ordering if there is a possibility that someone else may use that same client system.

[0018] Figure 4 is a flow diagram of a routine to generate a Web page in which single-action ordering is enabled. When single-action ordering is enabled, the server system generates a Web page describing an item as is conventionally done and then adds a single-action ordering section. In one embodiment, the server system adds partial purchaser-specific order information to the section. This information may include the customer's name, a shipping address moniker selected by the purchaser (e.g., "at home"), and the last five digits of a credit card number or a nickname selected by the purchaser. Such partial information should be the minimum information sufficient to indicate to the purchaser whether or not the server system is using the correct purchaser-specific order information. In step 401, the server system generates a standard shopping cart-type Web page for the item. In step 402, if the single-action ordering flag has been set for the client identifier and customer combination, then the server system continues at step 403, else the server system completes. In step 403, the server system adds the single-action section to the Web page and completes.

[0019] Figure 5 is a flow diagram of a routine which processes a single-action order. When a purchaser performs the single action needed to place an order, the client system notifies the server system. The server system then combines the purchaser-specific order information for the customer associated with the client system with the item order information to complete the order. The single-action order may also be combined with other single-action orders and possibly with other conventionally placed orders to reduce shipping costs. In one embodiment, single-action orders can be combined if they are placed within a certain time period of each other (e.g., 90 minutes). This routine illustrates the combining of the single-action orders into a short-term order (e.g., available to be shipped in less than a week) and a long-term order (e.g., available to be shipped in more than a week). One skilled in the art would appreciate that the single-action orders can be combined in various ways based on other factors, such as size of shipment and intermediate-term availability. In step 501, if the item is expected to be shipped in the short term, then the server system continues at step 502, else the server system continues at step 505. In step 502, if a short-term order has already been opened for the purchaser, then the server system continues at step 504, else the server system continues at step 503. In step 503, the server system creates a short-term order for the purchaser. In step 504, the server system adds the item to the short-term order and continues at step 508. In step 505, if a long-term order has already been opened for the purchaser, then the server system continues at step 507, else the server system continues at step 506. In step 506, the server system creates a long-term order for the purchaser. In step 507, the server system adds the item to the long-term order. In step 508, the server system generates and sends the con-

firmation and completes.

[0020] Figure 6 is a flow diagram of a routine for generating a single-action order summary Web page. This Web page (e.g., Figure 1C) gives the user the opportunity to view and modify the short-term and long-term single-action orders. In step 601, the server system adds the standard single-action order information to the Web page. In step 602, if a short-term order is open, then the server system adds the short-term order to the Web page in step 603. In step 604, if a long-term order is open, then the server system adds the long-term order information to the Web page in step 605 and completes.

[0021] Figure 7 is a flow diagram of a routine that implements an expedited order selection algorithm. The goal of the expedited order selection algorithm is to minimize the number of orders sent to each destination so that shipping costs are reduced. A destination may be a specific shipping address plus a specific purchaser's billing details. Orders that are sent to the same destination are known as "sibling orders." The algorithm has two stages. In the first stage, the algorithm schedules for shipment the orders for destinations for which all the sibling orders are filled. An order is filled when all its items are currently in inventory (i.e., available) and can be shipped. For each group of sibling orders, the algorithm combines those sibling orders into a single combined order so that only one order is currently scheduled for shipment to each destination. In the second stage, the algorithm combines and schedules groups of sibling orders for which some of the sibling orders are not filled or partially filled. The algorithm may split each partially filled sibling order into a filled sibling order and a completely unfilled sibling order. The algorithm then combines all the filled sibling orders into a single combined order and schedules the combined order for shipment. If any group has only one sibling order and that order is partially filled, then the algorithm in one embodiment does not split that order to avoid making an extra shipment to that destination.

[0022] During the second stage, the algorithm may select and schedule groups of sibling orders in a sequence that is based on the next fulfillment time for an item in the group. The next fulfillment time for a group of sibling orders is the minimum expected fulfillment time of the items in that group of sibling orders. For example, if a group of sibling orders has seven items that are not yet fulfilled and their expected fulfillment times range from 3 days to 14 days, then the next fulfillment time for that group is 3 days. The algorithm first schedules those groups of sibling orders with the largest next fulfillment time. For example, if 6 groups have next fulfillment times of 3, 5, 7, 10, 11, and 14 days, respectively, then the algorithm first selects and schedules the sibling orders in the group with the next fulfillment time of 14 days, followed by the group with the next fulfillment time of 11 days, and so on. By delaying the scheduling of groups with short next fulfillment times, the algorithm increases

the chances of additional items becoming available (because of the shortness of the next fulfillment time) and thus combined with the scheduled order.

[0023] Steps 701-703 represent the first stage of the expedited order selection algorithm, and steps 704-706 represent the second stage of the expedited selection order algorithm. In steps 701-703, the algorithm loops selecting groups in which all sibling orders are filled and combining the orders. In step 701, the algorithm selects the next group with all sibling orders that are filled. In step 703, if all such groups have already been selected, then the algorithm continues with the second stage in step 704, else the algorithm continues at step 703. In step 703, the algorithm combines and schedules the orders in the selected group and loops to step 701. In step 704, the algorithm selects the next group of sibling orders that has the largest next fulfillment time. In step 705, if all such groups have already been selected, then the algorithm is done, else the algorithm continues at step 706. In step 706, the algorithm combines and schedules the orders in the selected group and loops to step 704. When the expedited order selection algorithm is being performed, new orders and new inventory may be received. Whenever such new orders and new inventory is received, then the algorithm restarts to schedule and combine the new orders as appropriate.

[0024] Although the algorithm has been described as having two stages, it could be implemented in an incremental fashion where the assessment of the first and second stages are redone after each order is scheduled. One skilled in the art would recognize that there are other possible combinations of these stages which still express the same essential algorithm.

[0025] Figures 8A-8C illustrate a hierarchical data entry mechanism in one embodiment. When collecting information from a user, a Web page typically consists of a long series of data entry fields that may not all fit onto the display at the same time. Thus, a user needs to scroll through the Web page to enter the information. When the data entry fields do not fit onto the display at the same time, it is difficult for the user to get an overall understanding of the type and organization of the data to be entered. The hierarchical data entry mechanism allows a user to understand the overall organization of the data to be entered even though the all data entry fields would not fit onto the display at the same time. Figure 8A illustrates an outline format of a sample form to be filled in. The sample form contains various sections identified by letters A, B, C, and D. When the user selects the start button, then section A expands to include the data entry fields for the customer name and address. Figure 8B illustrates the expansion of section A. Since only section A has been expanded, the user can view the data entry fields of section A and summary information of the other sections at the same time. The user then enters data in the various data entry fields that are displayed. Upon completion, the user selects either the next or previous buttons. The next button

causes section A to be collapsed and section B to be expanded so that financial information may be entered. Figure 8C illustrates the expansion of section B. If the previous button is selected, then section A would collapse and be displayed as shown in Figure 8A. This collapsing and expanding is repeated for each section. At any time during the data entry, if an error is detected, then a Web page is generated with the error message in close proximity (e.g., on the line below) to the data entry field that contains the error. This Web page is then displayed by the client system to inform the user of the error. In addition, each of the data "entry" fields may not be editable until the user clicks on the data entry field or selects an edit button associated with the data entry field. In this way, the user is prevented from inadvertently changing the contents of an edit field. When the user clicks on a data entry field, a new Web page is presented to the user that allows for the editing of the data associated with the field. When editing is complete, the edited data is displayed in the data "entry" field. Because the fields of the form are thus not directly editable, neither "named-submit" buttons nor Java are needed. Also, the form is more compact because the various data entry options (e.g., radio button) are displayed only on the new Web page when the field is to be edited.

[0026] In other embodiments, the present invention provides a mechanism for giving a gift to an identified recipient(s) using a single action. When information is displayed describing the item, the system displays an instruction to identify the recipient(s) and then to select a "give" button to effect the giving of the item to the identified recipient(s). If the user is giving the gift to only one recipient, then the user enters identifying information, such as the email address, of the recipient. If the user is giving the gift to more than one recipient, the user could enter the identifying information of each recipient, or alternatively, the user could enter a group name that is associated with the identifying information for each member (i.e., recipient) of the group. The system uses the identifying information to identify a delivery address for the gift. As described in more detail below, the system can use various databases to locate information for an identified recipient.

[0027] Figures 9A-9B illustrate use of a single-action to give an item as a gift to one or more recipients. Figure 9A illustrates the giving of a gift to one recipient. The sections 101-104 are the same as described for Figure 1A. The gift giving section 901 contains an instruction subsection 901a, an identifying information subsection 901b, and a single-action giving subsection 901c. To effect the giving of the item to a recipient, the user enters the email address of the recipient in the identifying information subsection 901b and then selects the single-action giving subsection 901c. The system receives the email address and uses the email address to locate the delivery address for the recipient as described below in detail. The system bills the item to the user

based on information stored for that user for single-action ordering and ships the item to the recipient at the delivery address. As described below, the system can allow many different types of identifying information to be specified by the user.

[0028] Figure 9B illustrates the giving of a gift to multiple recipients. The gift giving section 902 contains an instruction subsection 902a, a group name subsection 902b, and a single-action giving subsection 902c. To effect the giving of the item to multiple recipients, the user inputs a name of the group that identifies the recipients into the group name subsection 902b and then selects the single-action giving subsection 902c. The system uses the group name to identify a list of recipients who are associated with the group name. Figure 10 illustrates a grid for creation of a group and the entry of identifying information for recipients associated with the group (i.e., members). The user enters the group name in group name section 1001 and then enters information relating to the recipients in each row of the member information section 1002. The user can enter as much information about each recipient associated with the group as is known by the user. For example, the user may enter only the email address for some users, while entering the name, email address, and delivery address of other recipients. When the system is requested to give an item to each recipient associated with a group, the system uses the information stored for each recipient to identify additional information need to effect the delivery of the gift as described below. The system may also store the identified additional information for each recipient so that when another item is subsequently given to that recipient, the additional information needed to effect the delivery of the item can be quickly retrieved. Alternatively, a single address book for a user containing the information for all possible recipients can be maintained. The user specifies a group by indicating some of the recipients whose addresses are in the address book. The use of address books facilitates the maintaining of multiple groups that have one or more recipients in common. In addition, a user can at any time provide additional information about a recipient to facilitate the retrieval of sufficient information to effect the delivery of an item.

[0029] A computer-based method and system for coordinating the delivery of gifts by receiving gift orders, collecting additional delivery information that is not specified in the gift orders, and delivering gifts based on the additional delivery information is also provided. In one embodiment, the gift delivery system of the present invention receives gift orders via Web pages provided on the WWW. The gift orders specify a gift that is to be delivered to a recipient. The recipient may be identified by information that does not include the delivery address of the recipient. For example, the recipient may be only identified by a name and contact information such as an electronic mail address or a telephone number. The gift delivery system attempts to contact the

recipient to obtain sufficient delivery information if the contact is not successful, the gift delivery system searches various databases of information to identify additional contact information. If sufficient delivery information is obtained, the gift is delivered to the recipient and the gift giver is notified accordingly. If, however, sufficient delivery information cannot be obtained, the gift giver is notified that the gift cannot be delivered.

[0030] Figure 11 is a flow diagram of the overall flow of the gift delivery system. In step 1101, the gift delivery system receives the order for a gift from a gift giver. In one embodiment, the order is received via access through a Web page, but may also be received via other modes of communication, such as a voice telephone call, postal mail, facsimile, or electronic mail. In step 1102, the gift delivery system attempts to contact the recipient of the gift. The gift order may specify contact information for the recipient, such as an electronic mail address or a telephone number of the recipient. Based on the contact information provided with the gift order, an attempt via electronic mail or an automated voice telephone call is made to initially contact the recipient and gather sufficient delivery information. Alternatively, a person may attempt to make a voice telephone contact with the recipient. In step 1103, if the initial contact is successful, then the system continues at step 1106, else the system continues at step 1104. In step 1104, the system attempts to collect additional contact information. The system can obtain the additional contact information through various database sources using the information provided with the gift order. For example, the system can use the recipient's name or the recipient's electronic mail address to access Internet-based database systems. In step 1105, if the system obtains additional contact information from these additional sources, then the system loops to step 1102 to attempt to contact the recipient using the additional contact information, else the system continues at step 1111. In step 1106, the system collects delivery information from the successful contact. For example, if the successful contact is a phone call, the operator making the phone call preferably enters the delivery information. If the successful contact is an electronic mail exchange, the system preferably parses the recipient's reply message to collect the delivery information. In step 1107, the system verifies that the delivery information is correct. The system may use various databases, which contain lists of all proper street addresses, to verify the address. In step 1108, if the delivery information is verified, then the system continues at step 1109 to send the gift to the recipient, else the system continues at step 1111. In step 1109, the system sends the gift to the recipient. In step 1110, the system sends an electronic mail to the gift giver providing notification that the gift has been sent successfully. In step 1111, if sufficient delivery information could not be gathered or the delivery information could not be verified, then the system sends a message (e.g., via electronic mail) to the gift giver pro-

viding notification that the gift could not be delivered and is being placed on hold.

[0031] In an additional embodiment (not shown), if an attempt to contact the recipient is unsuccessful in step 1103, then the system attempts to obtain additional delivery information for the recipient from sources other than the recipient, such as databases and other sources similar to those discussed below in conjunction with Figure 8. If the system is able to obtain sufficient delivery information for the recipient in this manner, the system preferably sends the gift to the recipient using the obtained delivery information.

[0032] Figure 12 is a block diagram illustrating the components of the gift delivery system. Computer system 1201 contains a central processing unit, memory, and peripheral devices, such as a disk drive and CD-ROM. The gift delivery system includes an order entry system 1202 and an order delivery system 1203. The order entry system provides a user interface for a gift giver to input a gift order. The order entry system in one embodiment comprises a Web page that accesses a gift database 1204. The gift giver uses the Web page provided to select which gift should be sent to the recipient. In addition, the gift giver provides information describing the recipient. The order entry system then stores the order information in the order database 1205. The gift delivery system controls the locating of additional delivery information so that the gift can be successfully delivered to the recipient. The gift delivery system retrieves information from the order database and attempts to contact the recipient based on the information provided with the gift order. If the recipient cannot be contacted based on that information, then the gift delivery system accesses other database sources, such as the customer database 1206 and Internet-based databases 1208 to gather additional contact information for the recipient.

[0033] Figure 13 is a state diagram illustrating the various states of a gift order. A gift order can be in one of six states: received, response pending, verifying delivery information, collecting additional contact information, on hold, and scheduled for delivery. Initially, when an order is received, the system places the order in the received state 1301. When the system attempts to contact the recipient using the information provided by the gift giver, the gift order changes to a response pending state 1302. The response pending state indicates that the attempt to contact is in progress, but no response has yet been received from the recipient. If a sufficient response is received from the recipient in the allotted time (e.g., 24 hours), then the gift order changes to the verifying delivery information state 1303. In the verifying delivery information state, the system attempts to verify that the delivery information is correct. If the delivery address is correct, then the gift order enters the scheduled for delivery state 1304. If the initial response was insufficient or not received in the allotted time, then the system places the gift order in the collecting additional

contact information state 1305. In the collecting additional contact information state, the system searches additional sources of information to determine additional contact information about the recipient. If additional contact information can be found, then the system attempts an additional contact, and places the gift order in the response pending state 1302. If however, additional contact information cannot be found, then the system places the gift order in the on hold state 1306.

[0034] In a further preferred embodiment, if the initial response is insufficient, then the system places the gift order in a collecting additional delivery information state (not shown). In the collecting additional delivery information state, the system searches additional sources of information to obtain additional delivery information for the recipient. If the system is able to obtain sufficient delivery information in this manner, then the system places the gift order in the verify delivery information state 1303. Otherwise, the system places the gift order in the on hold state 1306.

[0035] Figure 14 is a flow diagram of a routine that controls the receiving of gift orders. The receive gift order routine controls the interaction with the gift giver to select a gift from the gift database, to receive information on the recipient, to receive the payment, and to store the gift order in a database. This routine processes gift orders received electronically. One skilled in the art would appreciate that similar routines could be developed to handle other forms of receiving gift orders. In step 1401, the routine receives a request to send a gift from a gift giver to a recipient electronically via a Web page. In step 1402, the routine creates a session with the gift giver. The session is used to track the interaction with the gift giver and the gift delivery system. In step 1403, the routine receives the gift selection information. The gift selection information may be selected in response to a display of available gifts from the gift database. In step 1404, the routine receives recipient contact information from the gift giver. The recipient contact information may typically include the recipient's name and electronic mail address. In step 1405, the routine receives payment information. The payment information may be in an electronic form, such as a credit card, debit card, or digital cash, or in a conventional form, such as check or money order. If in conventional form, the gift order may be placed in an additional state waiting for receipt of the payment. In step 1406, if the payment is approved, then the routine continues at step 1408, else the routine notifies the gift giver that the payment has been denied. In step 1408, the routine assigns a gift order tracking number to the gift order. The gift order tracking number is used by the system to identify the gift order throughout its processing. In step 1409, the routine stores the gift order information in the gift order database. In step 1410, the routine notifies the gift giver that the gift order has been accepted. In step 1411, the routine ends the session with the gift giver.

[0036] Figure 15 is a block diagram of a routine that

controls the attempt at first contact of the recipient. The first contact is made with contact information provided by the gift giver, such as electronic mail address and telephone number. If sufficient information is not provided to even attempt to contact the recipient initially, the gift delivery system searches various databases to obtain such information based on the recipient's name. In step 1501a, if the recipient's electronic mail address has been provided in the gift order, then the routine continues at step 1501b, else the routine continues at step 1502a. In step 1501b, the routine sends an electronic mail to the electronic mail address provided. The electronic mail contains information indicating that a gift is to be sent to the recipient and requests delivery information for the gift. The electronic mail includes the tracking number assigned by the system so that when a reply mail is received, the gift delivery system can determine to which gift order it corresponds. In step 1502a, if the recipient's phone number has been provided, then the routine continues at 1502b, else the routine continues various other attempts to contact the recipient. For example, if a facsimile number was provided, a facsimile message is sent to the number. In step 1502b, the routine schedules an initial telephone contact with the recipient. The initial telephone contact could be via an automated voice telephone system in which a message is left with the person answering the phone or with an answering machine. Alternatively, a human operator may make the initial voice contact. After the initial contact is made, the gift order is placed in response pending state.

[0037] Figure 16 is a flow diagram of a routine that controls the processing of the initial voice telephone contact. This routine can either display information for a human operator or provide information to an automated operator. In step 1601, if the telephone has been answered, then the routine continues at step 1602, else the routine leaves the gift order still scheduled for initial contact. In step 1602, if a message is left either with a person or a voicemail system, then the routine continues at step 1603, else the routine leaves the gift order still scheduled for initial contact. In step 1603, if a sufficient response has been received, then the routine continues at step 1605, else the routine continues at step 1604. In step 1604, the routine schedules the gift order for searching for additional contact information relating to the recipient. In step 1605, the routine updates the order database with the additional information about the recipient. In step 1606, the routine schedules the gift order to have its delivery information verified and changes its state to verifying delivery information.

[0038] Figure 17 is a flow diagram of a routine that controls the processing of the initial response. The initial response can be via electronic mail, voice telephone, or facsimile message. In step 1701, if the tracking number is included in the response, then the routine continues at step 1702, else the routine continues at step 1704. In step 1702, the routine verifies the tracking number using

the gift order database. In step 1703, if the tracking number has been verified, then the routine continues at step 1706, else the routine continues at step 1704. In step 1704, the routine attempts to find the tracking number based on the information provided in the response. In step 1705, if the tracking number can be found, then the routine continues at step 1706, else the routine continues at step 1707. In step 1706, if the response contains sufficient delivery information so that the gift order can be delivered, then the routine continues at step 1708, else the routine continues at step 1707. In step 1707, the routine schedules the order for searching for additional delivery information. In step 1708, the routine schedules the order to have its delivery information verified and changes its state to verify delivery information.

[0039] Figure 18 is flow diagram of a routine that controls the collecting of additional contact information. This routine searches various database sources based on the information provided in the gift order. For example, in step 1801, the routine searches Internet-based telephone and electronic mail directories, such as Switchboard, Four11, and Accumail. In step 1802, the routine searches various CD-ROM databases of telephone and electronic mail information, such as Select-Phone. In step 1803, the routine searches the local database of customer information. The local database of customer information contains information of previous recipients and gift givers. In step 1804, the routine searches various Internet-based search engines, such as Digital Equipment's Alta Vista or Infoseek's Ultra-Seek. In step 1805, the routine uses the electronic mail address or telephone number to identify the geographic location of the recipient. In particular, the routine accesses the InterNIC Registration Services of Network Services for the domain name registration of the recipient's electronic mail address. Alternatively, the routine accesses the standard table of area codes and telephone number prefixes to determine the geographic locale of the recipient. The gift delivery system can use each of these information sources, a subset of these information source, or additional information source to locate the additional information. In step 1806, the routine analyzes the retrieved information to determine the information that most likely corresponds to the recipients based on geographic or contextual matches. This analysis may be done electronically or interactively with a human operator. In step 1807, the routine stores the retrieved and analyzed information and the gift order database. In step 1808, the routine displays the information to a human operator and requests instructions on further processing. The instructions can either be to place the order on hold because sufficient delivery information has not been collected, send an initial contact to the recipient, or proceed with delivery of the gift.

[0040] Figure 19 is a flow diagram of a routine that controls the verifying of the delivery information. The gift delivery system verifies the delivery information to

ensure that the gift is being sent to a deliverable address. In step 1901, the routine checks the validity of the delivery information automatically. The routine uses a database of U.S. Postal Service addresses to determine whether the delivery address is a valid U.S. Postal Service address. In step 1902, if the address is valid, then the routine continues at step 1906, else the routine continues at step 1903. In step 1903, the routine prompts a human operator for manual verification of the address. In step 1904, if the operator has manually verified the address, then the routine continues at step 1906, else the routine continues at step 1905. In step 1905, the routine notifies the gift giver that the order cannot be fulfilled and places the order on hold. In step 1906, the routine schedules the gift for delivery and notifies the gift giver accordingly.

[0041] Although the present invention has been described in terms of various embodiments, it is not intended that the invention be limited to these embodiments. Modification within the spirit of the invention will be apparent to those skilled in the art. For example, the server system can map a client identifier to multiple customers who have recently used the client system. The server system can then allow the user to identify themselves by selecting one of the mappings based preferably on a display of partial purchaser-specific order information. Also, various different single actions can be used to effect the placement of an order. For example, a voice command may be spoken by the purchaser, a key may be depressed by the purchaser, a button on a television remote control device may be depressed by the purchaser, or selection using any pointing device may be effected by the purchaser. Although a single action may be preceded by multiple physical movements of the purchaser (e.g., moving a mouse so that a mouse pointer is over a button), the single action generally refers to a single event received by a client system that indicates to place the order. Finally, the purchaser can be alternately identified by a unique customer identifier that is provided by the customer when the customer initiates access to the server system and sent to the server system with each message. This customer identifier could be also stored persistently on the client system so that the purchaser does not need to re-enter their customer identifier each time access is initiated. The scope of the present invention is defined by the claims that follow.

Claims

1. A method for placing an order to purchase an item, the order being placed by a purchaser at a client system and received by a server system, the method comprising:

under control of the server system,

receiving purchaser information including

identification of the purchaser, payment information, and shipment information from the client system;

assigning a client identifier to the client system;

associating the assigned client identifier with the received purchaser information;

sending to the client system the assigned client identifier; and

sending to the client system display information identifying the item and including an order button;

under control of the client system,

receiving and storing the assigned client identifier;

receiving and displaying the display information; and

in response to the selection of the order button, sending to the server system a request to purchase the identified item, the request including the assigned identifier; and

under control of the server system,

receiving the request; and

combining the purchaser information associated with the client identifier included with the request to generate an order to purchase the item in accordance with the billing and shipment information whereby the purchaser effects the ordering of the product by selection of the order button.

2. The method of claim 1 wherein the purchaser information is received when the purchaser placed a previous order.

3. A method for ordering an item using a client system, the method comprising:

displaying information identifying the item and displaying an indication of an action that is to be performed to order the identified item; and in response to the indicated action being performed, sending to a server system a request to order the identified item whereby the server system uses an identifier of a customer ordering the item to identify additional information needed to generate an order for the item.

4. The method of claim 3 wherein the identifier identifies the client system and the server system provides the identifier to the client system.

5. The method of claim 3 wherein the client system and server system communicate via the Internet.
6. The method of claim 3 wherein the identifier is provided by the server system. 5
7. The method of claim 3 wherein the displaying includes displaying an HTML document provided by the server system. 10
8. The method of claim 3 including sending from the client system to the server system a confirmation that the order was generated.
9. The method of claim 3 wherein the action is a single action. 15
10. The method of claim 9 wherein the single action is clicking a mouse button when a cursor is positioned over a predefined area of the displayed information. 20
11. The method of claim 9 wherein the single action is a sound generated by a user.
12. The method of claim 9 wherein the single action is selection using a television remote control. 25
13. The method of claim 9 wherein the single action is depressing of a key on a key pad. 30
14. The method of claim 9 wherein the single action is selecting using a pointing device.
15. The method of claim 9 wherein the single action is selection of a displayed indication. 35
16. The method of claim 3 wherein the displaying includes displaying partial information supplied by the server system as to the identity of the user.
17. The method of claim 3 wherein the displaying includes displaying partial shipping information supplied by the server system. 40
18. The method of claim 3 wherein the displaying includes displaying partial payment information supplied by the server system. 45
19. The method of claim 3 wherein the indicated action is selecting a button and that button indicates to enable single-action ordering when currently not enabled. 50
20. The method of claim 3 when the displaying includes displaying a moniker identifying a shipping address for the customer. 55
21. A method in a server system for generating an order for an item, the method comprising:
 - receiving user information for users of a plurality of client systems; and
 - for each client system,
 - storing the received user information in association with an identifier; and
 - providing the identifier to the client system;
 - when requested by a client system, providing information describing the item to the requesting client system;
 - receiving a request from a client system to order the item, the request indicating the identifier and an indication of the item; and
 - combining the user information stored in association with the indicated identifier to effect the ordering of the item for the user of the client system identified by the indicated identifier.
22. The method of claim 21 including providing partial user information to the client system so that the user can verify whether the identifier is associated with correct user information.
23. The method of claim 21 wherein the server system associates user information for a plurality of users with one identifier and wherein a user designates which associated user information to use.
24. The method of claim 21 wherein the user information is received when orders are placed.
25. The method of claim 21 wherein multiple orders are combined into a single order.
26. The method of claim 21 wherein multiple orders are combined into separate orders based on expected shipment date.
27. The method of claim 21 wherein the identifier uniquely identifies the user.
28. The method of claim 21 wherein the identifier uniquely identifies a client system.
29. The method of claim 28 wherein the identifier is associated with different users at different times.
30. The method of claim 28 wherein the identifier is associated with multiple users at the same time.
31. The method of claim 28 wherein multiple identifiers are associated with one user at the same time.
32. A method in a computer system for scheduling orders for a plurality of destinations, the orders to

be shipped to the same destination being sibling orders, the method comprising:

scheduling the sibling orders for each destination for which all the sibling orders are filled so that multiple filled sibling orders can be shipped together; and
after scheduling such sibling orders, scheduling sibling orders for each destination for which at least one of the sibling orders has an available item.

33. The method of claim 32 wherein the scheduling of sibling orders for which at least one of the sibling orders has an available item includes scheduling those sibling orders with the largest next fulfillment time first.

34. The method of claim 32 wherein when a new order is received, the steps of the method are restarted.

35. The method of claim 32 wherein when inventory is received, the steps of the method are restarted.

36. A method of placing an order for an item comprising:

under control of the client system,

displaying information identifying the item;
and
in response to a predefined action being performed, sending a request to order the item along with an identifier of a purchaser of the item to a server system; and

under control of the server system,

receiving the request;
retrieving additional information previously stored for the purchaser identified by the identifier in the received request; and
generating an order for the purchaser identified by identifier in the received request.

37. The method of claim 36 wherein the displaying of information includes displaying information indicating the predefined action.

38. The method of claim 36 wherein the predefined action is clicking a button.

39. The method of claim 36 wherein the predefined action is speaking of a sound.

40. The method of claim 36 wherein the predefined action is a single action.

41. The method of claim 36 wherein a user of the client system does not need to explicitly identify themselves when placing an order.

42. A client system for ordering an item comprising:

an identifier that identifies a customer;
a display component for displaying information identifying the item; and
an item ordering component that in response to performance of a predefined action, sends a request to a server system to order the identified item, the request including the identifier so that the server system can locate additional information needed to complete the order.

43. The client system of claim 42 wherein the display component is a browser.

44. The client system of claim 42 wherein the predefined action is the clicking of a mouse button.

45. A server system for generating an order comprising:

a data storage medium storing information for a plurality of users;
a receiving component for receiving requests to order an item, the request including an indication of one of the plurality of users; and
an order placement component that retrieves from the data storage medium information for the indicated user and that uses the retrieved information to place an order for the indicated customer for the item.

46. The server system of claim 45 wherein the request is sent by a client system in response to a single action being performed.

47. A computer-readable medium containing instructions for causing a computer system to perform the method of claim 3.

48. A computer-readable medium containing instructions for causing a computer system to perform the method of claim 21.

49. A method in a computer system for coordinating the delivery a gift given by a gift giver to a recipient, the method comprising:

receiving an order from the gift giver, the order identifying a gift to be delivered to the recipient and having contact information describing the recipient;
storing the received order in an order database along with an order tracking number;

sending a communications to the recipient based on the contact information, the communications requesting delivery information for the gift, the communications including the order tracking number so that the recipient can include the order tracking number in a response to the communications for identification of the stored order;

when the recipient does not respond to the communications, collecting additional delivery information for the gift based on the contact information;

when potential delivery information for the gift has been identified, verifying whether the potential delivery information is valid; and when the delivery location has been verified as being valid,

sending the gift in accordance with the delivery information; and notifying the gift giver that the gift has been sent to the recipient.

50. The method of claim 49 wherein the sending of a communications includes sending an electronic mail.

51. The method of claim 49 wherein the order is received via access through a Web page.

52. The method of claim 49 wherein the delivery information is an address and where the verifying includes:

checking a database of valid addresses to determine whether the address can be determined to be valid address; and when the address can be determined to be a valid address, indicating that the delivery information has been verified; and when the address cannot be determined to be a valid address,

prompting a person to indicate whether the address is valid; and when the person indicates that the address is valid, indicating that the delivery information has been verified.

53. The method of claim 49 wherein the collecting of additional delivery information includes collecting information from one or more information sources that include an Internet-based telephone database, an Internet-based electronic mail database, a local telephone database, a local electronic mail database, a database of previous recipients and gift givers, an Internet-based search engine, and a database of information relating to the domain

name registration of an electronic mail address of the recipient.

54. The method of claim 49 wherein the communications is a telephone call placed to the recipient.

55. The method of claim 49 including when the gift cannot be delivered to the recipient, notifying the gift giver that the gift cannot be delivered.

56. A method in a computer system for coordinating delivery of a gift from a gift giver to a recipient, the gift and recipient being specified in a gift order, the method comprising:

determining whether the gift order includes sufficient information so that the gift can be delivered to the recipient;

when sufficient information is not provided in the gift order, obtaining delivery information from one or more information sources; and when sufficient delivery information can be obtained from the additional information sources so that the gift can be delivered to the recipient, directing the gift to be sent to the recipient as indicated by the delivery information.

57. The method of claim 56 including receiving the gift order electronically.

58. The method of claim 56 wherein when the gift order contains information such that the recipient can be contacted, obtaining the delivery information by contacting the recipient directly.

59. The method of claim 56 wherein the recipient is contacted directly by sending an electronic mail.

60. The method of claim 56 wherein the recipient is contacted directly by a voice telephone call.

61. The method of claim 56 wherein the obtaining of delivery information includes collecting information from one or more information sources selected from among an Internet-based telephone database, an Internet-based electronic mail database, a local telephone database, a local electronic mail database, a database of previous recipients and gift givers, an Internet-based search engine, and a database of information relating to the domain name registration of an electronic mail address of the recipient.

62. A computer-based gift delivery system for coordinating the delivery of a gift from a gift giver to a recipient, comprising:

an order entry component for providing a selection of available gifts, for receiving a selection of a gift, for receiving contact information describing the recipient, and for storing the gift order; and

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a gift delivery component for retrieving the stored gift order, for determining whether the contact information includes sufficient delivery information to deliver the gift to the recipient, for when sufficient delivery information is not included, obtaining additional information about the recipient by attempting to contact the recipient and by searching various databases of information, and for directing the sending of the gift to the recipient when sufficient delivery information has been obtained.

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63. The gift delivery system of claim 62 wherein the order entry component assigns an order tracking identification to each gift order and wherein the gift delivery component includes the order tracking identification when attempting to contact the recipient.
64. The gift delivery system of claim 62 wherein the gift delivery component searches various Internet-based databases using the recipient name or electronic mail address.
65. The gift delivery system of claim 62 wherein the order entry component receives payment electronically.
66. The gift delivery system of claim 62 wherein the order entry component is accessed via Web pages.

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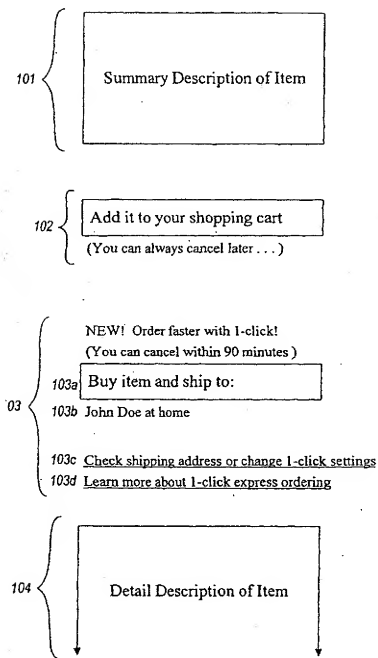


Fig. 1A

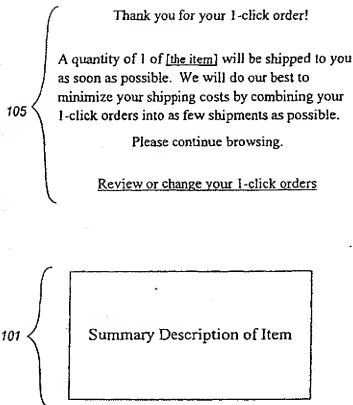


Fig. 1B

Summary of 1-Click Express Orders

Press this button if you Changed Quantities of any item below. If you don't press it, your changes won't "stick." You can set the quantity to 0 (zero) to cancel an item.

The 1-click orders below (available in 3 or fewer days) will be shipped together.

106 {	Order # 098337		
	<input type="text" value="1"/>	Item 1	\$10.00
	<input type="text" value="1"/>	Item 2	<u>\$15.00</u>
		Total	\$25.00

The 1-click orders below (available in one week or more) will be shipped together.

107 {	Order # 098336		
	<input type="text" value="1"/>	Item 3	\$20.00
	<input type="text" value="1"/>	Item 4	<u>\$ 6.00</u>
		Total	\$26.00

108 {	Ship to:		John Doe at home
	Shipment Method:		Standard Domestic Shipping
	Payment Method:		**** * 1_2345
	<input type="button" value="Continue Shopping"/>		

1-Click Express shipping policies

Fig. 1C

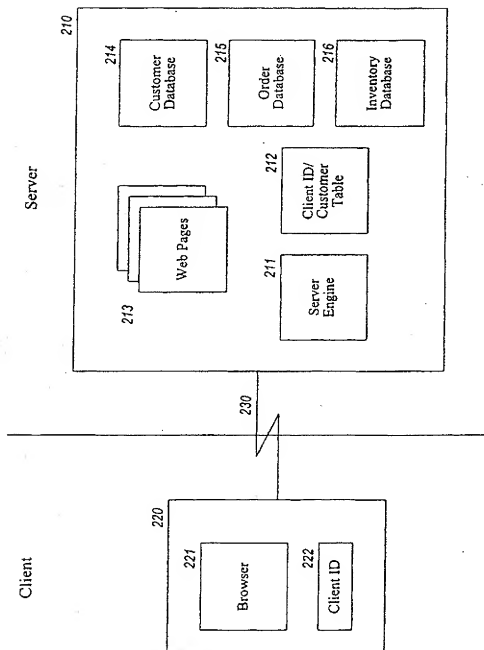
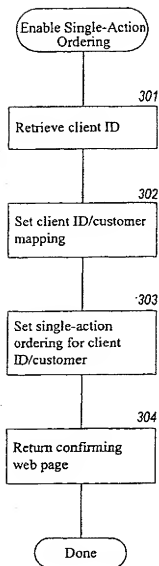
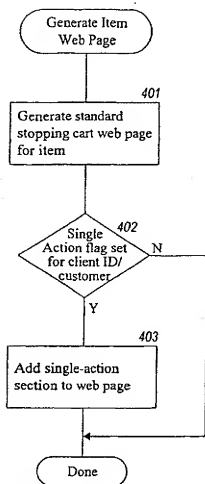


Fig. 2

*Fig. 3*

*Fig. 4*

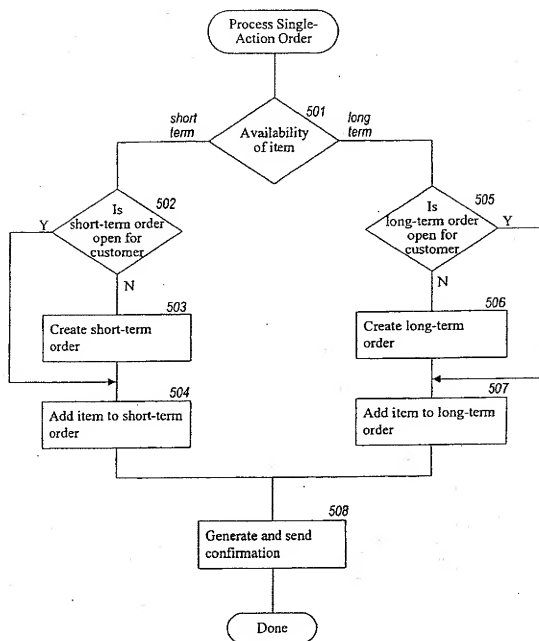
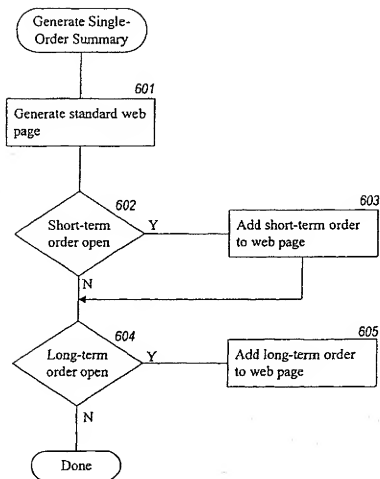
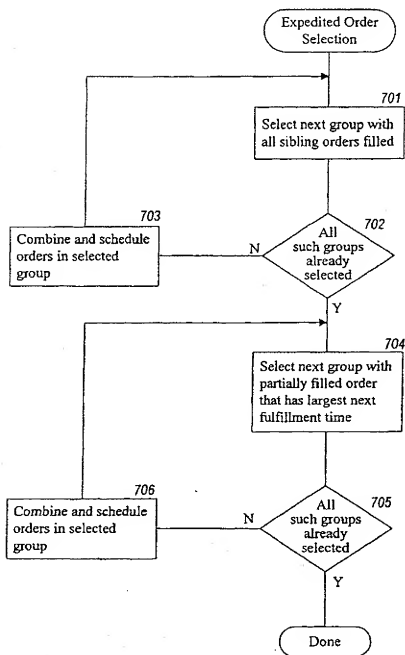
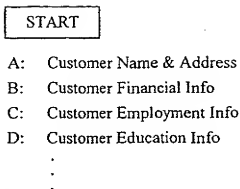


Fig. 5

*Fig. 6*

*Fig. 7*

*Fig. 8A*

A: First Name :

M.I. :

Last Name :

Street :

City :

State : Zip :

- B: Customer Financial Info
- C: Customer Employment Info
- D: Customer Education Info
- ...

Fig. 8B

A: Customer Name & Address

B: Net Worth:

Annual Income:

Spouse's Annual Income:

Other Income:

Next

Previous

C: Customer Employment Info

D: Customer Education Info

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Fig. 8C

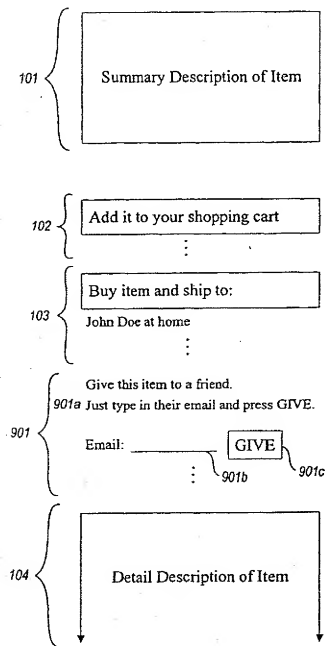
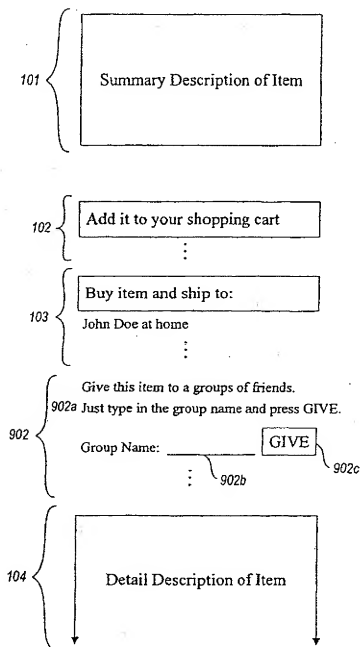


Fig. 9A

*Fig. 9B*

Create Group

Group Name: _____ 1001

Member Information

Name Email Delivery Address . . .

1002

		⋮	

Fig. 10

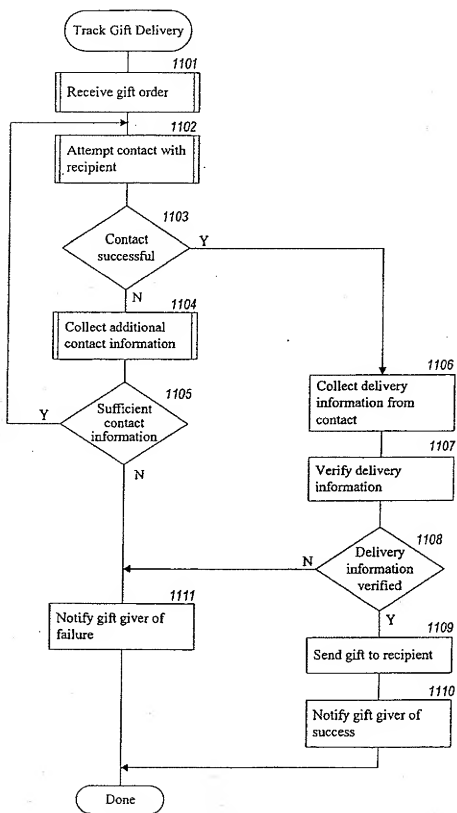


Fig. 11

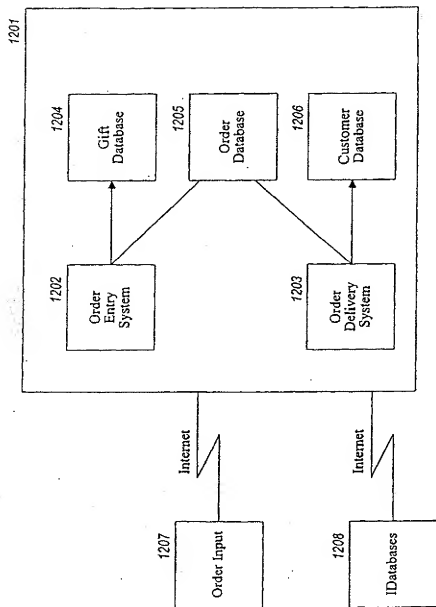


Fig. 12

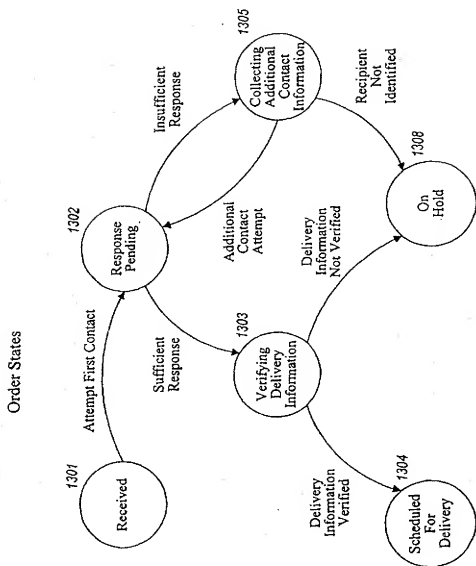
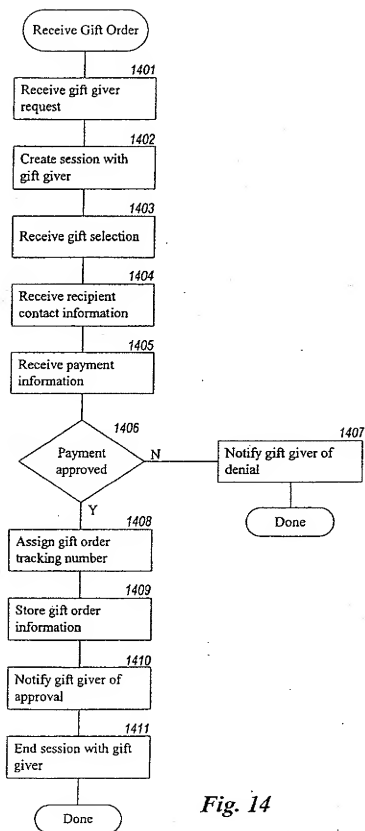
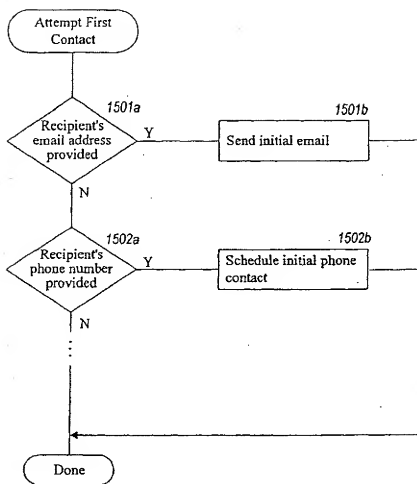


Fig. 13

*Fig. 14*

**Fig. 15**

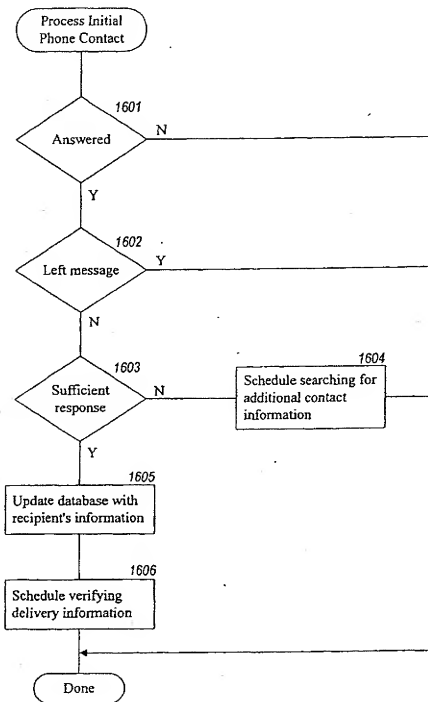


Fig. 16

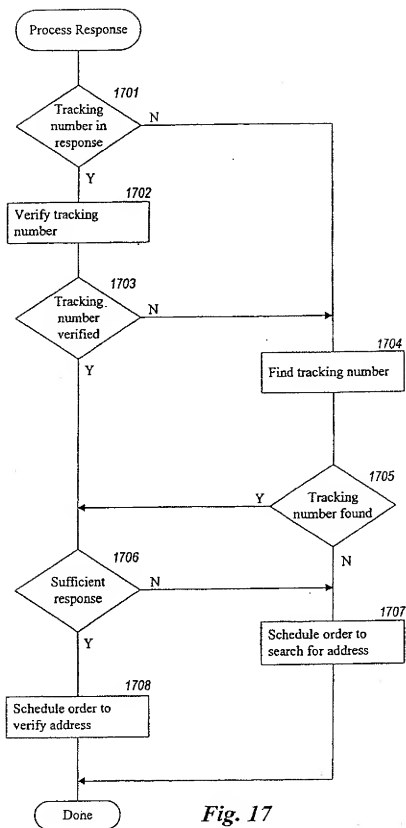
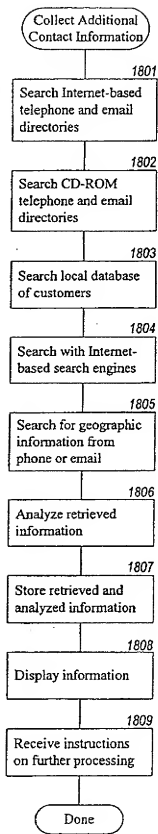
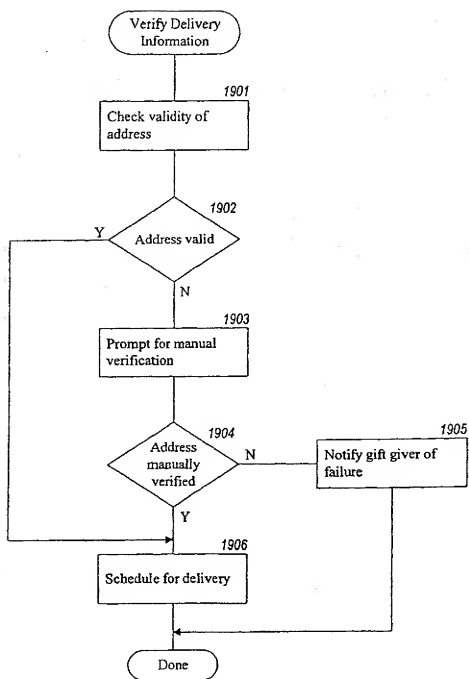


Fig. 17

*Fig. 18*

*Fig. 19*